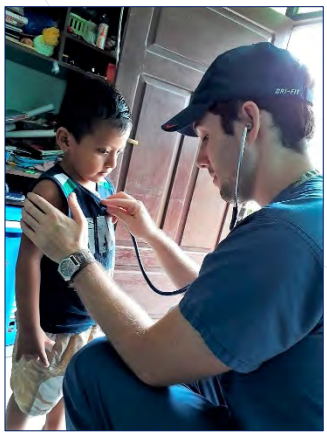
THE UNIVERSITY OF ARIZONA
College of Medicine
Tucson

YOUR IMPACT

Thanks to you, the **Mulcahy Memorial Scholarship** is making it possible for UA Global Health students to have the experience of working in international settings. Below are stories of how these funds made a difference last year for two recipients from the UA College of Medicine - Tucson Class of 2018:

Zachary Gastelum



I would like to express my sincerest gratitude to you for the Mulcahy Scholarship I received this year. Your generosity allowed me to complete my Global Health Clinical Preceptorship and graduate with distinction in Global Health while minimizing the financial burden of traveling abroad.

I spent six weeks in Montero, Bolivia volunteering with the Consejo de Salud Rural Andino*, a community health center with a focus on primary care and maternal child health. I had the unique experience of participating in the center's* Mi Salud *program which consists of weekly home visits, mass vaccination, and mass medicine disbursement campaigns. Through this program, I had the unique opportunity to observe first-hand the social determinants of health for the families we served while visiting their neighborhoods and homes. I saw and improved my understanding of illnesses that are rare in the US such as active tuberculosis, acute hepatitis A, and a variety of parasitic diseases.*

I also gained a better understanding of the state of autism spectrum disorder awareness in the region by conducting a series of interviews with which I completed my capstone research project. I am sharing my findings with the organization, so they can be better equipped to improve autism awareness, disease recognition, and eventually therapeutic services in the community.

Maria Fernandez, MPH

I had the honor of receiving the Mulcahy Memorial Scholarship for my fourth year rotation with The Red Cross of Tijuana Mexico. For six weeks I was able to work in Emergency Medicine in a busy, poverty-stricken area of Tijuana, doing what I am most passionate about: Global and Border Health. I am graduating with distinctions in Global Health and Commitment to Underserved People. I will be practicing Family Medicine and hope to use my global and border health skills in my future practice.

With your support I was able to grow as a primary care physician and develop critical skills for managing urgent care needs in extremely resource-poor settings. ***I want to truly thank you for helping medical students pursue their passions – I am so grateful for your support and hope to make you proud with my future practice!***

UNIVERSITY OF ALBERTA

DONOR IMPACT REPORT 2018

Music student Andrea Pedro plays the new donor-funded Steinway concert piano at Convocation Hall

What does the future look like if we build it together?

More than 100 years ago, our founders and first students launched the University of Alberta to help build a city, a province and a country, citizen by citizen, and to solve the problems we face together.

This year, donors joined U of A students, faculty and other partners to continue to imagine and build a future of healthy, safe, resilient and vibrant communities.

As the examples on these pages show, your generosity fosters potential, brings ideas to life, breaks down barriers and lifts people up.

Your gift helps address the needs of today and builds a better society for tomorrow.

Thank you.

Nobody can do it alone. A donor-funded scholarship has helped fourth-year mathematics and finance student Zhaoxin Ye focus on how businesses can use statistical theories to plan for future risk and uncertainty.

YOU ARE ONE OF **18,583** DONORS

TOGETHER, YOU GAVE **$142.6 M**

HERE'S WHAT DONATIONS SUPPORTED IN 2017-18

RESEARCH 36%

You advanced research and discovery and helped attract talented faculty.

PROGRAMS 33%

You enhanced teaching, experiential learning and student research opportunities.

FACILITIES 19%

You transformed campus through new and enhanced buildings, labs, libraries and learning spaces.

AWARDS 12%

You reduced financial barriers for students and helped them achieve their potential.

ENDOWED GIFTS

Your gift has an enduring impact

Donors to endowed funds provide the university with a steady, predictable and perpetual source of income.

$1.4 B

Value of University of Alberta endowments

$27 M

Added to endowments in 2017-18

$38 M

Made available in 2017-18 from endowment funds to support research, teaching and learning

ANNUAL GIFTS

Your gift has an immediate impact

Donors who give annually make an immediate impact and help address emerging and high-priority needs.

4,748

Loyal donors who have supported the U of A each year for the past five years

4,133

First-time donors

10,765

Donors who are U of A alumni

1 in 5
Number of Canadians who have been diagnosed with a sports-related concussion

40%
Increase in rates of reported head injury among children and youth relative to other sports injuries between 2004 and 2014

9
Number of accelerometers that measure mechanical impact on a dummy's head in the U of A's Biomedical Instrumentation Laboratory

83
Canada Research Chairs held by U of A faculty and recognized by the Government of Canada as "the world's most accomplished and promising minds"

Megan Ogle was halfway through her master's research in head injury biomechanics when she sustained a concussion on the ice.

Head in the Game

This year you helped reinforce research

Ringette player Megan Ogle was racing down the ice when she collided with a bigger player. She fell, her head snapping backward as she slammed against the ice.

Her memory of the incident is hazy, a sign she sustained a moderate concussion. In the weeks after the injury, lights and noise bothered her and carrying on a conversation was exhausting. Ogle counts herself lucky her brain injury wasn't worse. Soon she was back to work on her research — coincidentally — on the biomechanics of head and neck injury.

There is no helmet certified to protect against concussion. Donor-funded research aims to change that.

One in five Canadians has had a concussion diagnosis, but it's estimated 50 per cent of concussions are never reported. The effects — including chronic pain, diminished neurological capacity and depression — can add up to a lifetime of challenges and missed opportunities.

There is no helmet certified to protect against concussion. But at the U of A's Biomedical Instrumentation Laboratory, where Ogle is a master's student, donor-funded research aims to change that. The lab's research includes looking at helmet protection from combat blasts, learning about the brain's chemical response to impact, and measuring a helmet's degree of protection.

Thanks to donors, this research will lead to improved design and testing of protective gear, safer games and better lives.

500

Approximate number of U of A students who have been affected by the 2016 Fort McMurray wildfire

47

Students who have received support from the Disaster Relief Bursary since 2016

1 in 3

Dollars of total undergraduate student financial support provided by donors

57%

Portion of total donor-funded endowments that provide scholarship, award and bursary support for students

"I couldn't have done it without donor support," says Nicole McMillan, at home in Fort McMurray, Alta., two years after the wildfire.

Air to Breathe

This year you helped students stay strong

Nicole McMillan's journey from heartache to resilience mirrors that of her hometown, Fort McMurray, Alta. In less than a year, her mom was diagnosed with pancreatic cancer, her dad was laid off and a wildfire devastated the northern city, forcing a mass evacuation. After they returned, McMillan took on four jobs to help her parents. Going back to school seemed impossible.

The U of A Disaster Relief Bursary, funded by nearly 100 donors, helped McMillan get back on her feet and into class. The business student returned to Fort McMurray for an internship in human resource management — experience she wants to apply to a future career in employment law.

"My mom always told me, 'Life doesn't stop because I get sick.'"

NICOLE McMILLAN, DISASTER RELIEF BURSARY RECIPIENT

Thanks to the bursary and another donor-supported award, McMillan's mom was able to see her daughter pursue her dreams. "My mom always told me, 'Life doesn't stop because I get sick.'" Her mother passed away in May 2017, one year after the wildfire.

McMillan has seen the impact of collective generosity — from her donor-funded bursary to the outpouring of support for Fort McMurray. She hopes to pay it forward by returning home after graduation to start her career and help her community rebuild.

From the Ground Up

This year you helped new spaces bloom

Opening in June 2018, the spectacular new Aga Khan Garden, Alberta will draw people from all backgrounds together in the largest Islamic-inspired garden in North America — an environment where cultural acceptance and understanding take root.

Located at the heart of the University of Alberta Botanic Garden near Devon, the Aga Khan Garden, Alberta embraces the local climate and landscape and forges a connection between contemporary Alberta and the traditional Islamic world. People from around the world will come to retreat, gather and celebrate.

Islamic gardens feature paved surfaces and geometric design that contrast with the natural world and explore human creativity. Visitors to the new garden will encounter forest paths, orchards and reflective pools. In the central courtyard, a fountain system will flow over terraces and past sunken gardens and plants that change colour with the seasons.

The garden is a gift to Albertans from His Highness the Aga Khan, the spiritual leader of the Ismaili Muslim community.

His Highness has stated: "The garden is a central element in Muslim culture, a symbol of a spiritual ideal — a place where human creativity and divine majesty are fused, where the ingenuity of humanity and the beauty of nature are productively connected."

8

Examination chairs available in the expanded clinic, doubling the number of patients that dentists and students can accommodate at one time

3,000+

Patients each year who will receive dental care because of the donor-funded expansion of the Boyle McCauley dental clinic

140

Days each school year that dentistry students will provide services at the clinic — supporting the community and gaining invaluable experience

755

Emergency visits to the dental clinic in 2017-18. With dental problems the most common physical health issue experienced by the homeless, one of the goals of the clinic is to lessen the load on hospital emergency rooms.

Low-income patients and families get access to care, and U of A dentistry students get hands-on experience through a community partnership.

Bridging a Gap

This year you helped communities smile

U of A dentistry student Connor Grimes was doing his regular volunteer shift at a community clinic in Edmonton's inner city when a 17-year-old girl arrived in severe pain. Her tooth was decaying and infected, and part had broken off. There was no way to fix it, but Grimes was able to pull the tooth, giving the teen some much-needed relief.

"Working at the clinic opened my eyes to the barriers people have."

CONNOR GRIMES, DENTISTRY STUDENT

Many patients who come to the Boyle McCauley Health Centre dental clinic face obstacles such as homelessness, mental illness and substance abuse. They may not be able to access dental care when they need it most.

"Working at the clinic opened my eyes to the barriers people have," Grimes says. He plans to continue giving back to this underserved community once he has his own dental practice.

A major expansion is underway at the Boyle McCauley dental clinic, thanks to a community partnership with the U of A School of Dentistry and generous ongoing donor support.

Soon, the clinic will become a teaching site for dentistry students, doubling its current capacity and increasing access to dental care for vulnerable populations — and creating more qualified, compassionate dentists in the process.

97%

Portion of concert pianists who choose to perform on Steinways

150

Concerts, recitals and master classes presented by the U of A music department this year

311

Students enrolled in music programs at the U of A. Many go on to perform nationally and internationally.

20,000+

Arts lovers who took in U of A music, theatre and design shows in 2017-18, illustrating the university's impact on the arts community

Watch and listen to music student Andrea Pedro (above) play the new concert piano at **uab.ca/steinway**.

A Note of Thanks

This year you helped make music

Master pianist and U of A music professor Jacques Després knows playing on a great piano is key to his talented students giving their best performances. U of A music students have access to renowned instructors and many opportunities to perform, but the concert pianos have aged.

Wear and tear on older pianos changes how they feel and sound, preventing students from playing to their potential. "It's like listening to music on earbuds with a laptop," Després says. "The music is there but not at the best possible quality."

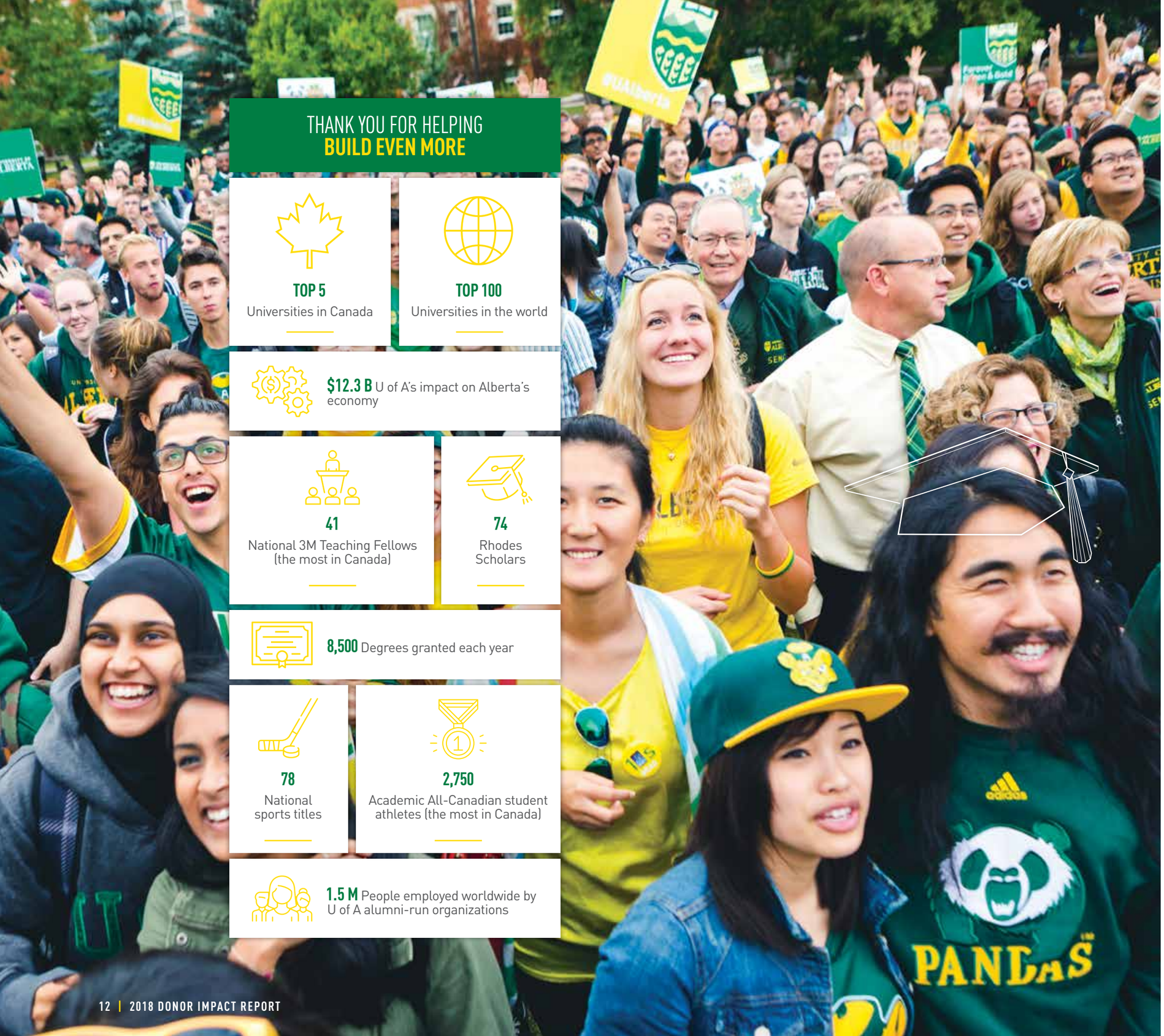
"When you play on a piano of this quality, you realize things about the music you would not realize on another piano."

JACQUES DESPRÉS, MASTER PIANIST AND MUSIC PROFESSOR

Thanks to a dedicated group of donors, a Steinway Model D concert grand piano made its debut at Convocation Hall this spring. It will be an invaluable learning tool for students.

A Steinway takes more than a year to build and is made almost entirely by hand. "When you play on a piano of this quality, you realize things about the music you would not realize on another piano," Després says. "You're not held back by the instrument."

The new Steinway will enrich Edmonton's vibrant arts community by attracting more visiting musicians, whose master classes and performances will benefit students and music lovers alike. "It is truly a special instrument," says Després.



THANK YOU FOR HELPING BUILD EVEN MORE

TOP 5
Universities in Canada

TOP 100
Universities in the world

$12.3 B U of A's impact on Alberta's economy

41
National 3M Teaching Fellows (the most in Canada)

74
Rhodes Scholars

8,500 Degrees granted each year

78
National sports titles

2,750
Academic All-Canadian student athletes (the most in Canada)

1.5 M People employed worldwide by U of A alumni-run organizations

Every gift uplifts our students and researchers — and improves the many lives they go on to touch

"Your support builds bridges that create opportunity and reveal possibilities the world might otherwise never have been able to see."

KATICA NAUDE
FIRST-YEAR CHEMISTRY STUDENT AND
DONOR-FUNDED SCHOLARSHIP RECIPIENT

"Universities endure because of their unique role — to pursue truth, to prepare citizens and to drive change. Donors strengthen that role by helping us tackle complex problems, create stronger communities and educate the next generation so that they can build a better future."

DAVID H. TURPIN
President and Vice-Chancellor,
University of Alberta

Development and Alumni Relations

Year in Review 2017/18

UNIVERSITY OF CAMBRIDGE

> The Ray Dolby Centre will complete the development of the new Cavendish Laboratory. In addition to serving as a home for physics research at Cambridge, it will be a top-class facility for the nation. This is a truly transformational gift in Cambridge's history.

Professor Andy Parker, Head of the Cavendish Laboratory, speaking at the announcement of the £85 million gift from the estate of Ray Dolby to the University, at the Global Cambridge San Francisco event in December.

Year in Review 2017/18

Front cover: A gift from DeepMind to establish a Chair of Machine Learning, based in the Department of Computer Science and Technology, will enable new scientific breakthroughs towards the development of safe and ethical Artificial Intelligence.

In support of our academic mission

Generous support, made possible through partnerships between donors and academic leaders, has led to a record year in philanthropy to Collegiate Cambridge.

£316 million in philanthropy was raised this year across Collegiate Cambridge.

This achievement was made possible by the exceptional generosity of our supporters and the enduring partnerships formed with leaders across Collegiate Cambridge that align donor passion with institutional priorities. By year end, the campaign for the University and Colleges had raised more than £1.28 billion.

Professor Stephen J Toope became the 346th Vice-Chancellor on 1 October 2017. During his first year in post, he consistently articulated his belief that the strength of Cambridge derives from its students, staff and alumni. He has been introduced to, and warmly welcomed by, alumni across the globe. He has engaged and connected with donors and volunteers in a variety of settings, reaffirming his commitment to the enabling power of philanthropy.

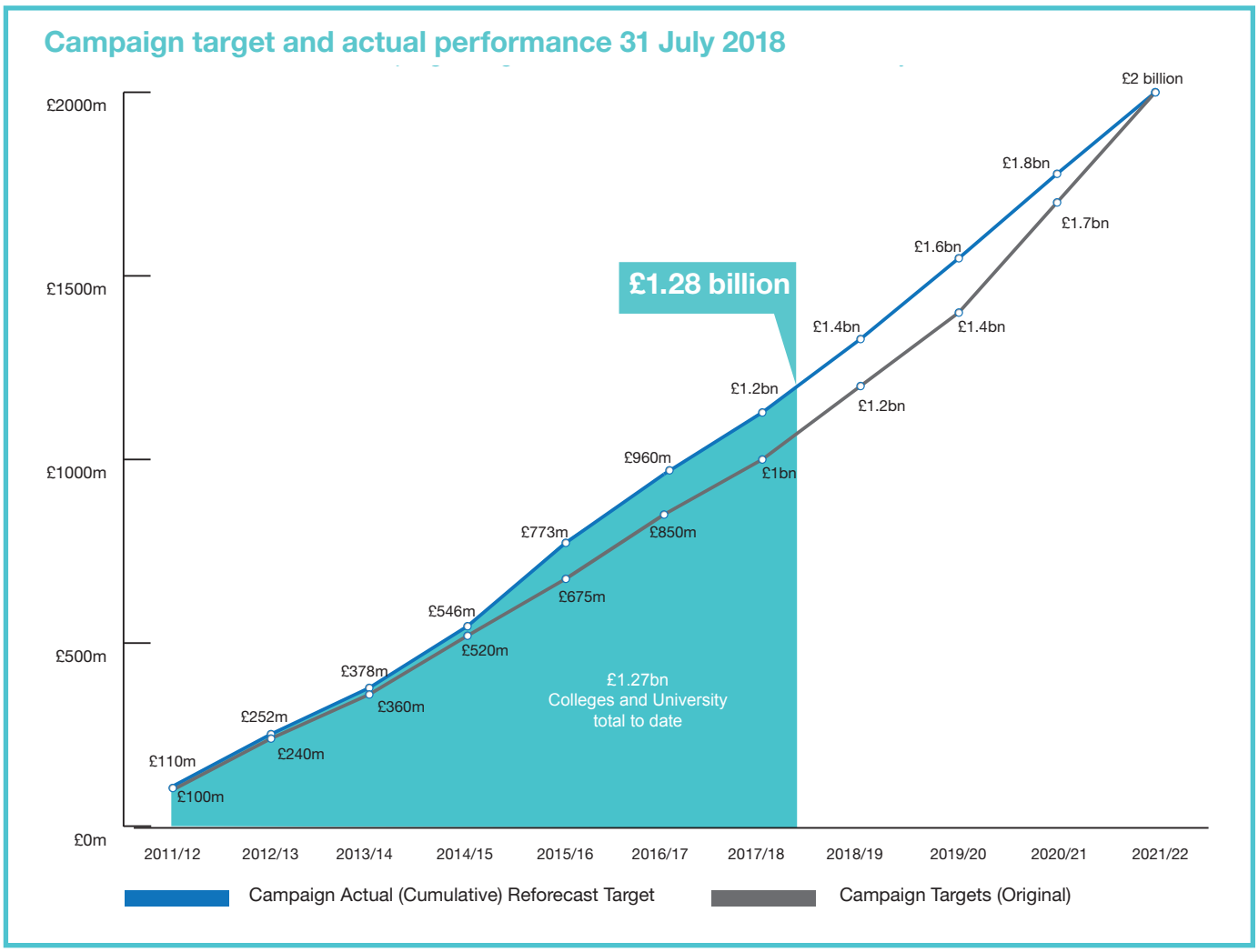
I also want to take the opportunity to recognise the extraordinary contribution of Yun Won Cho, Executive Director of Cambridge in America since 2014, who sadly passed away in August.

During her tenure, she made a real impact on her team, on the partnerships forged with her Cambridge colleagues, and on the University and Colleges as a whole. It was a privilege to work with her and she will be greatly missed.

Alison Traub
Executive Director

Record year for philanthropy to Collegiate Cambridge

This year has been remarkable by any measure with **£316 million** received through philanthropy to Collegiate Cambridge. In December 2017, the campaign surpassed the £1 billion milestone against the goal of £2 billion. As of 31 July 2018, the campaign total stood at £1.28 billion.



The University and Colleges received extraordinary gifts this year to fund priorities across all areas of need — capital, programmatic, academics and students — including 38 £1 million+ gifts. The Dolby gift to support the new Cavendish Laboratory is the largest ever given to UK science. There has also been an increase in the level of philanthropic gifts supporting the University's capital projects. The total in the campaign to date stands at 27%, up from 15%.

61,193
alumni have given to the campaign to date

38
gifts of over £1 million were received by the Colleges and University in 2017-18

A major gift from Churchill alumnus and philanthropist Peter Bennett made possible the launch of a groundbreaking new institute at the University of Cambridge. The Bennett Institute for Public Policy is dedicated to addressing the new patterns of inequality and social unrest emerging around the globe, while training the policy makers of tomorrow. Launched in April 2018, the Institute aims to become a pioneer in discovering successful and sustainable solutions to today's most pressing problems.

Peter Bennett, Professor Diane Coyle (Bennett Professor of Public Policy) and Professor Michael Kenny (Director of the Bennett Institute for Public Policy) at the launch of the Bennett Institute in April 2018.

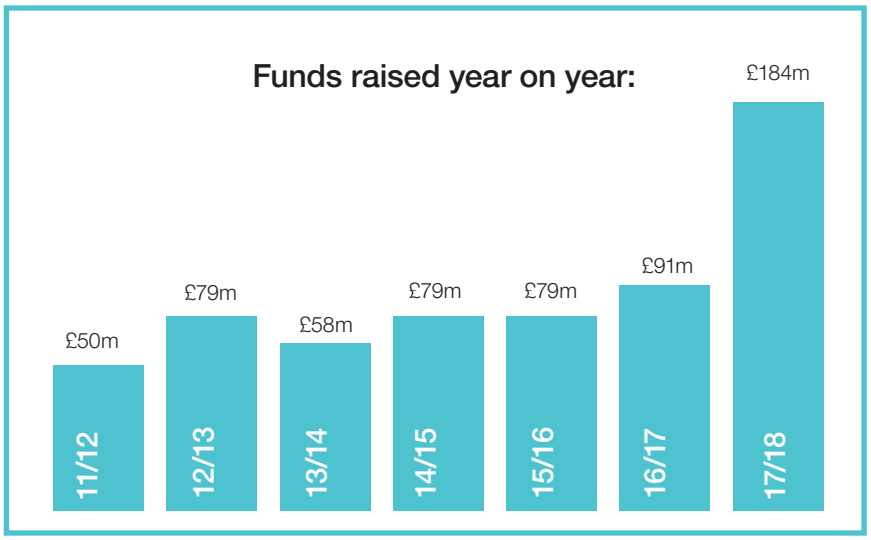
> **The creation of the Bennett Institute of Public Policy demonstrates the University's commitment to contribute to the re-imagining of public policy in an era of turbulence and growing inequality. There could not be a more important time to be launching this endeavour.**
>
> Diane Coyle, inaugural Bennett Professor of Public Policy

What Cambridge will do next

Our six campaign pillars encapsulate Cambridge's ambition for what the campaign will make possible:

Philanthropy in support of the University

£184 million was raised for the University in 2017-18, which included 17 gifts of £1 million or more. There was a significant growth in eight-figure gifts, with three gifts of more than £10 million each, together totalling £124 million. This marks a significant uplift in year-on-year fundraising performance and demonstrates the impact of building a longer-term pipeline for giving over time: in each of the past three years, the University has secured one gift over £10 million.



Number of fundraisers on staff at end July:

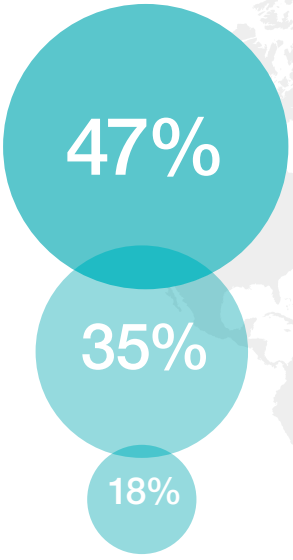
24 Development and Alumni Relations

5 Cambridge in America

15p amount spent per £1 raised in philanthropic funds (excluding the Dolby gift)

17 gifts of over £1 million received by the University

Our 17/18 £1m+ donors: who are they and where do they live?

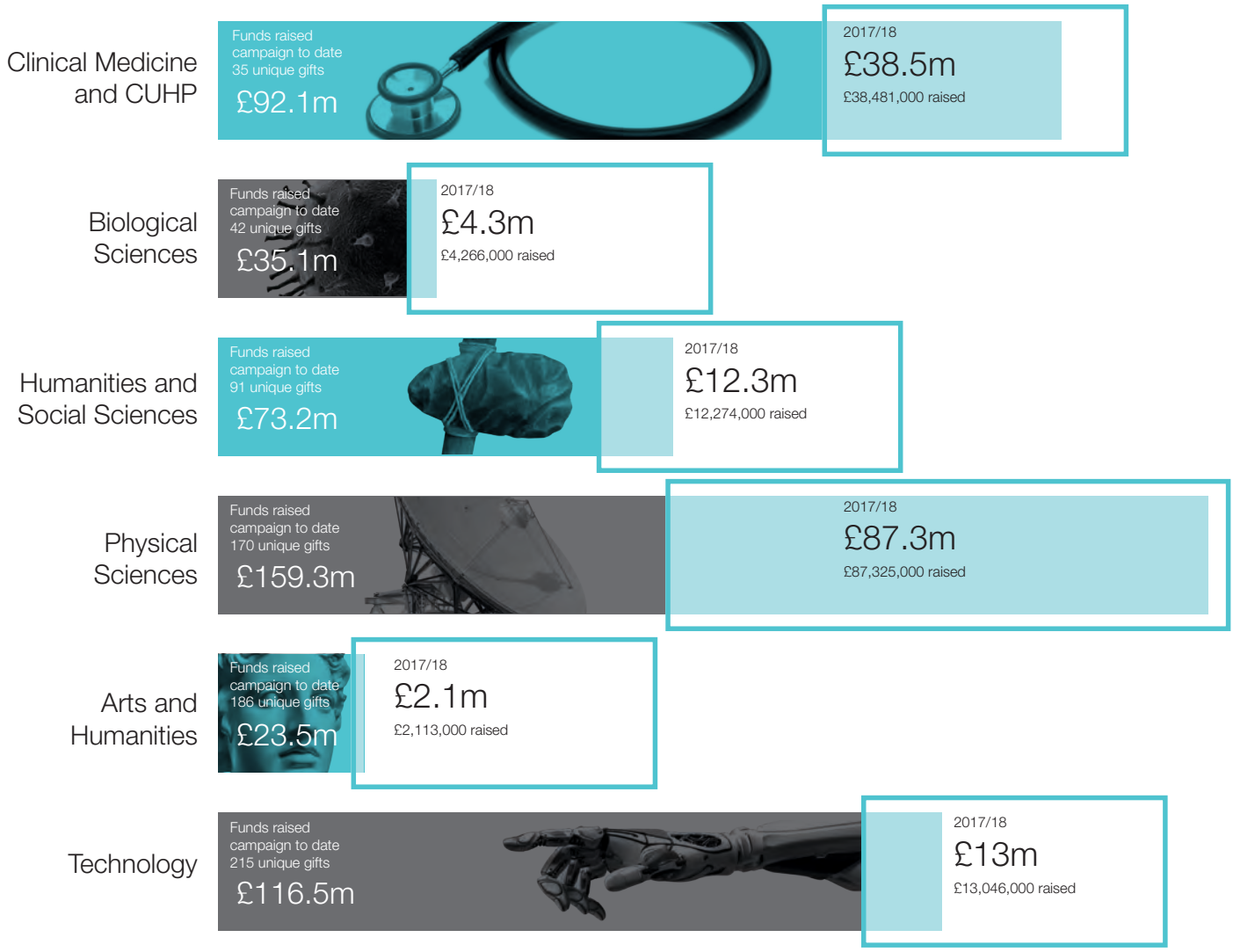


47% of donors are based in the **United Kingdom**; 25% of these are alumni, 25% non-alumni, 38% are corporates and the remaining 12% are trusts and foundations.

35% of donors are spread equally between the **United States**, **Malaysia** and **Hong Kong**.

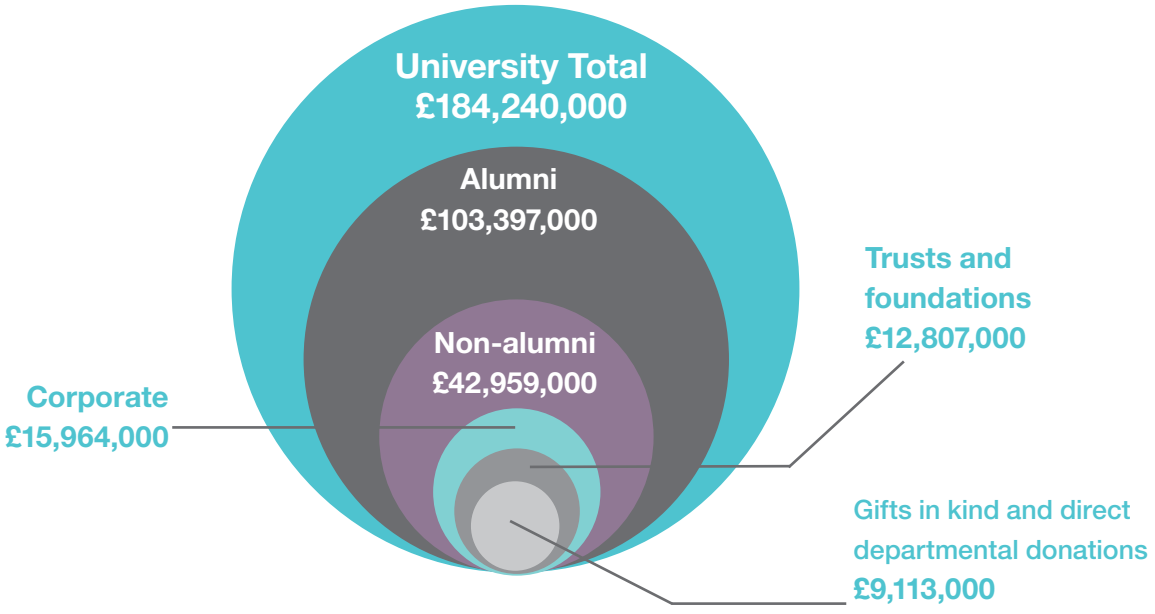
18% comprise corporate donors from **China** and an alumnus donor based in **Monaco**.

Cumulative funds raised for the six Schools in this Campaign (since 2011)



New funds raised in 2017/18 by constituent and gift type

In 2016/17, 8% of University funds raised came from alumni. The proportion has risen to 56% this year due mainly to the exceptional legacy gift from the estate of Ray Dolby (Pembroke 1957).



The impact of philanthropy

Exploring human cultures

A gift from the A.G. Leventis Foundation to support a postdoctoral research fellowship in African Archaeology builds on the shared commitment of the University and philanthropists to teaching and research on Africa's deep past. In 2018 Professor Paul Lane was appointed the first Jennifer Ward Oppenheimer Professor of the Deep History and Archaeology of Africa.

'The research funded by this gift will facilitate greater understanding and engagement with sub-Saharan African archaeology – and by doing so, help to address some of the many challenges facing the continent today.'

Professor Paul Lane
Jennifer Ward Oppenheimer Professor of the Deep History and Archaeology of Africa

Expanding human knowledge

A gift of £2.1 million from alumna Claire Barnes (Clare 1976) for a new Lectureship in Marine Biology will strengthen the Department's capability as a centre of excellence in the research and teaching of marine biology. The gift is a tribute to Dr Tony Whitten (King's 1975), a renowned ecologist who died in 2017.

'This post builds on our existing strengths and historic legacy of inspiring teaching and research, which continues to enthuse students with the sheer excitement and beauty of studying animals and the wonders of marine life. The new Lectureship will greatly enhance the Department's strengths in marine biology and enable us to answer crucial questions about the marine environment.'

Dr Howard Baylis
Head of the Department of Zoology

Enriching human lives

A major gift is supporting the cost of the new Jeffrey Cheah Biomedical Centre on Cambridge's Biomedical Campus, driving research into some of the world's most pressing health challenges including TB and HIV, rheumatoid arthritis and type-1 diabetes, Alzheimer's disease and multiple sclerosis.

'The research in this exceptional new building – through the Stem Cell Institute, the Cambridge Institute of Therapeutic Immunology and Infectious Diseases, and the Milner Therapeutics Institute – will have a real and profound effect on the health and lives of millions of people in the UK and around the world.'

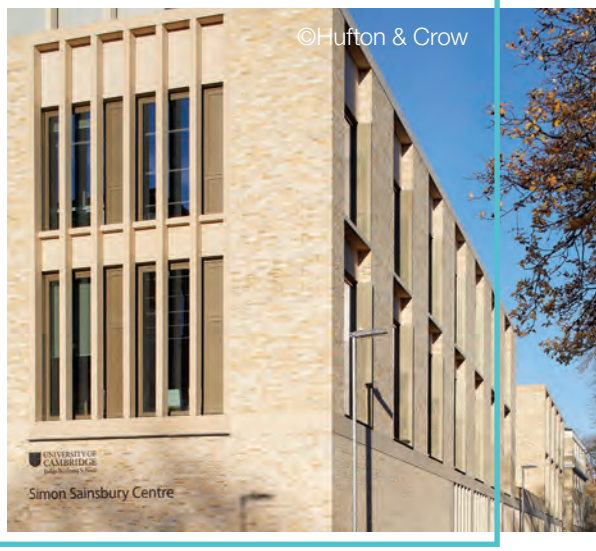
Professor Patrick Maxwell
Regius Professor of Physic and Head of the School of Clinical Medicine

Enhancing our environment

A lecture theatre in the new Simon Sainsbury Centre at the Cambridge Judge Business School is the result of a gift from alumnus Fadi Boustany, who was part of the very first Cambridge MBA cohort in 1991 – the largest donation received from one of the School's alumni.

'Fadi Boustany's philanthropy is an enormously important contribution to the major expansion of Cambridge Judge Business School. It will help the School continue to generate world-changing knowledge and ideas, in the best possible environment.'

Professor Christoph Loch
Director of the Cambridge Judge Business School



Empowering the minds

A donation of £420,000 from the Reuben Foundation for continued support for undergraduate bursaries will enable talented students from disadvantaged backgrounds to make the most of their Cambridge experience.

'It's not just about the income. It's knowing that there are people who believe in you enough to support your journey through higher education. Scholarships encourage academic confidence and help people believe in themselves.'

Mollie Georgiou (Queens' 2016)
Reuben Scholar

Enabling excellence

A £2.5 million donation to Cambridge sport from Chris and Sarah Field for the construction of two new floodlit hockey pitches will boost greater participation in sport within both the University and the local community.

'As a result of this gift, the existing Wilberforce Road Sports Ground will be transformed and provide greater opportunities for both Cambridge students and the wider community to play and enjoy hockey. The gift marks a defining moment in the mission of the University to improve sports facilities and to promote the many wide-ranging benefits sport gives to all who take part.'

Nick Brooking
University Director of Sport

The impact of philanthropy

319 Total number of Graduate Students funded by philanthropy

52 Funded in 2017-18

190 Total number of Postdoctoral Fellows funded by philanthropy

38 Funded in 2017-18

16 Total number of endowed University Lectureships

3 Lectureships endowed in 2017-18

10 Total number of endowed Professorships

3 Professorships endowed in 2017-18

Academic leaders and volunteers accelerating campaign momentum

In his first year in post the Vice-Chancellor has established relationships with key donors and volunteers. Professor Toope participated in 95 prospect meetings and hosted private dinners for 48 major supporters of Collegiate Cambridge. Pro-Vice-Chancellors and academic leadership are also involved in philanthropic and alumni engagement endeavours through donor meetings and hosting events around the globe.

Senior Pro-Vice-Chancellor Professor Graham Virgo at Global Cambridge Bristol

Alumni and non-alumni volunteers play a key role in our fundraising endeavours, initiating critical activity in key philanthropic markets and acting as exemplars to other philanthropists. Led by Mohamed El-Erian (Queens' 1977) and Sir Harvey McGrath (St Catharine's 1971), the Campaign Board comprises 11 alumni donors from the US, Asia and the UK and met three times this year. The Boston Regional Committee, chaired by Alan Smith and the Bay Area Committee, chaired by Peter Dawson, are newly formed US regional volunteer groups.

To encourage increased collaboration across Colleges, Campaign Board member Humphrey Battcock made an innovative gift to establish a *College Development Accelerator Fund* to which Colleges can apply to for support for their fundraising programming.

Campaign co-chair Sir Harvey McGrath (St Catharine's 1971) at Global Cambridge San Francisco

The London Engagement Series, led by the London-based campaign volunteer Host Committee, enables the Colleges and the University to engage alumni in London, in a way that we have not been able to before. More than 100 alumni and potential supporters have attended five events in 2017-18 that spotlight academic priorities for the Schools: 44% of the attendees had not been to a University event in the last three years, and many are engaging with the Collegiate University for the first time.

Following the success of these events, further engagement series are planned for Hong Kong, New York and San Francisco in 2019, to be led by campaign volunteers.

The 17-18 series was delivered by:

Professor David Runciman
Professor of Politics
Head of the Department of Politics and International Studies

Professor Sir Mark Welland
Head of Nanotechnology and Electrical Engineering
Master of St Catharine's College

Professor Giovanna Mallucci
Professor of Clinical Neurosciences and
Associate Director of the UK Dementia Research Institute, Cambridge

Professor Sir David Spiegelhalter
Winton Professor for the Public Understanding of Risk

Professor Cyprian Broodbank
Disney Professor of Archaeology and
Director of the McDonald Institute for Archaeological Research

Panellists Dr Robert Wardrop, Cambridge Centre for Alternative Finance, Cambridge Judge Business School, Dr Hatice Gunes, Department of Computer Science and Technology, and Dr Ewan Kirk (Queens' 1983), Cantab Capital Partners, in conversation with the Vice-Chancellor

Cambridge in the City

Volunteer activity led by Richard Gnodde (CEO of Goldman Sachs International, Christ's 1983, Campaign Board member) and Mark Lewisohn (Christ's 1981), to connect with London alumni has culminated in a new annual event series. Cambridge in the City was launched in June and attracted 133 alumni from the financial sector. Moderated by the Vice-Chancellor, the discussion centred on ways in which the finance sector is being reshaped by powerful new technological developments and the societal implications behind using these new technologies for business.

Reaching alumni and friends around the world

Since October 2017, the Vice-Chancellor has interacted with alumni globally through print and digital communications and at events. On the first day of his tenure, a personal video address was sent to more than 156,000 alumni and his blog posts have been shared via the monthly alumni e-newsletter worldwide. He has also hosted more than 2,000 alumni at events in Cambridge, London, San Francisco, New York, Mumbai, Beijing and Hong Kong.

Global Cambridge

Leeds
London
Paris
San Francisco
New York
India
Beijing
Hong Kong

The **Global Cambridge** series expanded to eight cities around the world in 2017/18, with more than 900 alumni in attendance.

Hosted by the Vice-Chancellor and Pro-Vice-Chancellors in key markets through the year, these events present an opportunity for academics to engage with alumni through sharing insights into their work and the global impact of Cambridge's endeavours. They also provide a springboard for academics and leadership to meet with volunteers and donors. The Global Cambridge events expose alumni to campaign messaging and help to engage alumni across the world with pressing issues addressed by the University today and in the future.

Panellists Kishore Sengupta, Bhaskar Vira and Zia Mody with the Vice-Chancellor at Global Cambridge Mumbai

Strategic communications to key audiences drive meaningful engagement with alumni and help to foster philanthropy and volunteering.

We connect with our alumni through regular activity on social media channels with a focus on Facebook, Twitter and Instagram. Alumni can thus easily access the newest academic content, connect with the University's mission and follow our students and academics from anywhere around the globe.

This year we reached our alumni through:

650,428 copies of CAM

3.79 million emails sent to **191,095** people

21,242 reactions, comments and shares on Facebook

Our alumni around the world: the top 12 countries by alumni population

297,033 living alumni around the world

Age

23% Under 35

37% 35-54

39% Over 55

Gender

♀ 36%

♂ 64%

Alumni Festival 2017

'The Alumni Festival is a highlight of my year. I learn more in three days than in the rest of the year together.'

1536 Record attendance of alumni and guests

26 Countries represented

35 Academics who spoke across the three days of the Festival

Alumni engaged as advocates and ambassadors

Meaningful alumni engagement is vital to the Collegiate University. It builds the pipeline for giving and volunteering to support the University's academic mission. Through interactions with the worldwide alumni network, segmented alumni communications, and the offering of alumni benefits and opportunities for engagement, the University's alumni programming fosters an active community of advocates, ambassadors, volunteers and donors.

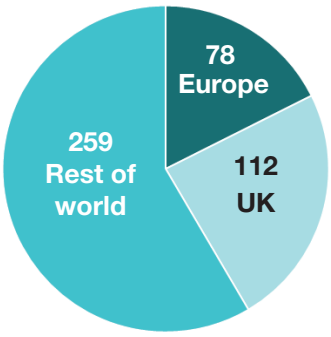
The Boat Race

Forty Alumni Groups held Boat Race events either on the day of the race itself or at another time (sometimes months later!). The Light Blues took all six eights races for the first time in 25 years.

The alumni Boat Race event held on HMS Elizabethan at the start of the course.

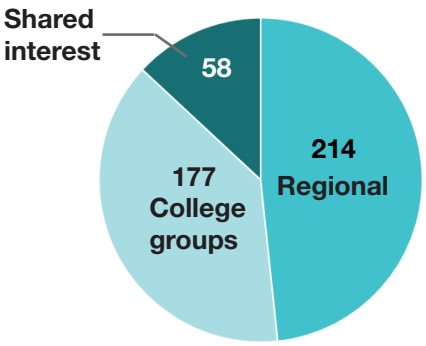
Alumni volunteers and staff welcomed more than 3,257 new graduates to the alumni community at General Admission in June 2018.

By location



453
Alumni groups

By type



The biennial Leadership Conference in Cambridge is our largest forum for both local and international Alumni Groups to share good practice, network, hear how the University can support them, and learn more about their vital role as advocates and ambassadors for the University of Cambridge. The 2018 conference was attended by volunteers representing 32 Alumni Groups from 13 countries.

Deepening University and College advancement collaboration

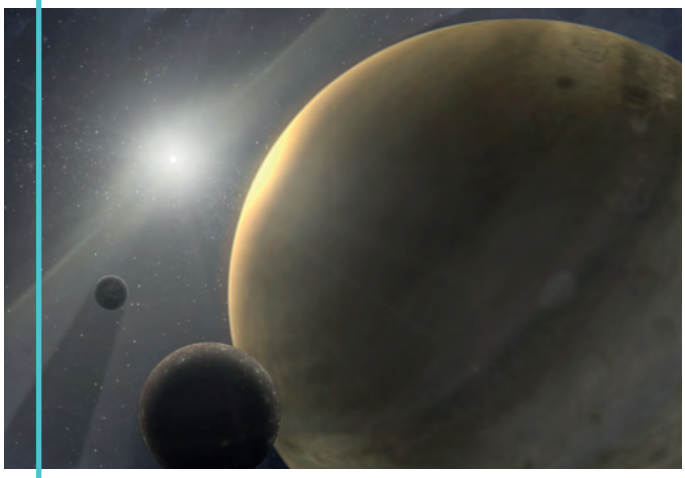
More than 300 development and alumni relations professionals work across the Collegiate University every day to support the academic mission of the University and its 31 Colleges.

The nature of this collaboration varies greatly, from working together on joint gifts to benefit a College and Department, to delivering joint induction of all new staff working in development and alumni relations at the University and Colleges, to sharing best practice and expertise as part of a coordinated professional development programme.

Increasingly the University and Colleges are working together to secure joint gifts. Here are two examples of such commitments in 2017-18:

Supporting African research in climate conflict and justice

The Isaac Newton Trust, Trinity Hall and the School of the Humanities and Social Sciences have collaborated to partner with the Philomathia Foundation on a new programme in 'African Justice and Transformation' in the Department of Politics and International Studies and at Trinity Hall. The programme will fund African postgraduates to undertake two PhDs in Politics, as well as eight MPhils in African Studies. It also includes funding to bring early career African researchers to Cambridge and to support one postdoctoral researcher undertaking a project on 'Climate Conflict and Climate Justice in Africa'.



Expanding our understanding of the universe

Alumnus Gavin Boyle (Selwyn 1987) has given to the Kavli Institute for Cosmology to introduce a new postdoctoral Fellowship. This Fellowship will be linked to Selwyn College and is designed to attract candidates who will help support teaching and other activity within the College, in particular relating to Astronomy. This collaboration has brought together a donor's two complementary interests and maximised the impact of a gift to Collegiate Cambridge.

The fourth Collegiate Cambridge Advancement Conference took place over four days in July with 16 sessions hosted at multiple locations across Cambridge. This new format saw more than 30 internal and external speakers present on topics related to fundraising, alumni relations and communications. More than 250 staff working in development and alumni relations, representing the University and all 31 Colleges, participated in this event. This annual event provides a unique opportunity for the Collegiate community to share knowledge and expertise and develop a common sense of purpose, thereby improving interactions with donors and alumni communities.

University of Cambridge
Development and Alumni Relations
cam.ac.uk/YoursCambridge
alumni.cam.ac.uk
@yourscambridge

James W. Dicker
Vice President

Development & Alumni Relations
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Fax: 302-831-3045
www.udel.edu/alumni-friends
www.udel.edu/delawarefirst

December 2018

Mr. and Mrs. John Smith
123 Street Road
Somecity, DE 01234

Dear John and Jane,

The University of Delaware is home to innovators, dreamers and problem-solvers eager to make our world a better place. Philanthropy empowers them to carry out important work with results that impact communities within Delaware and across the globe.

From investments in capital projects to student scholarships and faculty professorships, donor support advances **Delaware First: The Campaign for the University of Delaware** and helps this University thrive in countless ways. UD donors are making remarkable things happen now and for future generations. Thank you for your continued engagement and support.

On behalf of the University of Delaware, I am thrilled to present your 2018 Impact Report, which includes a profile of a student-athlete who will benefit from the new facilities funded by your generosity, and provide you with an update on the following funds:

- John and Jane Smith Distinguished Professor
- Smith Family Fellowship in Marine Science
- Smith Family Scholarship

Enclosed you will find the financial details of your funds reflective of fiscal year 2018 (July 1, 2017 to June 30, 2018), as well as information about the impact of your funds. I hope you enjoy learning more about how you are strengthening our campus community.

Thank you for putting Delaware first.

Sincerely,

Jim Dicker
Vice President, Development and Alumni Relations

YOUR 2018 IMPACT REPORT

UNIVERSITY OF DELAWARE

Financial Summary for the
JOHN AND JANE SMITH DISTINGUISHED PROFESSOR

Fiscal Year[1]	Book Value[2]	Market Value[3]	Gifts Received[4]
2014:	$267,289	$300,535	$25,000
2015:	$287,289	$314,807	$20,000
2016:	$307,289	$314,106	$20,000
2017:	$327,289	$358,592	$20,000
2018:	$347,289	$388,616	$20,000

The financial summary included above highlights the last five fiscal years only.

Please note that this fund, like all University of Delaware funds, grows to have greater impact with additional gifts. To make a gift, or to request a list of all donors who contributed to this fund during fiscal year 2018, please call us toll-free at 1-866-535-4504 during normal business hours, or visit us online at www.udel.edu/giving.

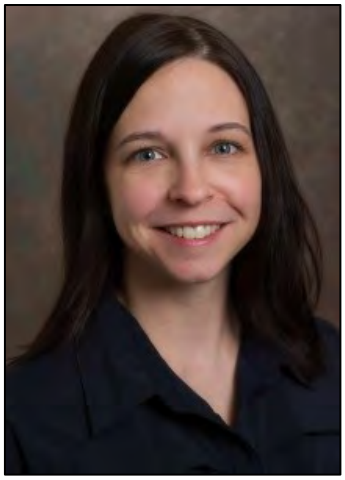
[1] The University's fiscal year runs from July 1 to June 30.

[2] The book value represents the value of gifts, transfers, reinvested income and other adjustments to the principal amount of an endowed account.

[3] The market value is the book value plus (or minus) market appreciation (or depreciation).

[4] This column indicates the cumulative sum of gifts made to this endowed fund during the fiscal year.

KELLY JOHNSON



John and Jane Smith Distinguished Professor

Professional Accomplishments

My research activities and collaborations have resulted in the publication of nine peer-reviewed journal articles and five invited book chapters in 2017 and 2018. Before the end of the year, I will submit the first peer-reviewed manuscript from my lab's work in the FRAME, a long-term urban forest ecology project started by a UD faculty member and USDA Forest Service scientist around 10 years ago.

When I joined the UD faculty, I became a lead scientist with the FRAME and brought plant and soil expertise to the existing entomology and wildlife ecology research. We have expanded the network into urban forests in Philadelphia, PA and Raleigh, NC with current efforts to include cities across the temperate deciduous forest biome. We are making discoveries about plant community dynamics and soil ecosystem process that will lead to numerous publications from myself and my team in the next couple years. I have been funded to explore threats from sea level rise, non-native plant invasion, invasive insect pests, and urbanization to forest health over the last couple years.

Most recently, I was awarded an NSF EPSCoR Track IV award titled "Multiple global change factors control forest nitrogen cycling: Remote sensing and machine learning identify forest function across developed landscapes" that will support the development of innovative technologies in my lab and to assess forest functioning across urban landscapes. Finally, I am serving as the Incoming Chair of the Urban and Anthropogenic Soils Division (UAS) for the Soil Science Society of America (SSSA), as a board member for the Delaware Urban and Community Forestry Council and on the Grants and Research Committee for the Delaware Invasive Species Council.

Looking Ahead to the 2018-2019 Academic Year

In October 2019, I am an invited speaker for the Tree Canopy Conference at Haverford College (PA) and for the Blueprint Communities lecture series on Green Infrastructure for Community Change in Wilmington, DE. As the incoming Chair of the Urban and Anthropogenic Soils Division of the SSSA, I am co-organizing our division sessions for the first international SSSA meeting in San Diego in January 2019, and I will be presenting along with a post-doctoral researcher from my lab. In addition, I am a co-organizer for two proposed Organized Oral Sessions at the Ecological Society of America annual meeting in August, 2019, and will also be presenting as an invited speaker.

How has working at UD helped you grow professionally?

The University of Delaware has a rich culture of collaboration among faculty and strong administrative assistance for faculty. This support structure is integral for the advancement of my funding successes and the growth of my professional interactions among my societies and research colleagues at other universities. While our department does not have a formal mentorship program for early faculty, several faculty members have served as mentors and peer-support that has encouraged my professional development.

How have you been positively influenced by your students and/or your colleagues at UD?

I have been fortunate to interact with students and colleagues from across the university. Students from multiple colleges enroll in my Urban Ecology and Urban Forestry courses taught within the PLSC department. The multitude of perspectives from our own students are further enriched with perspectives from other disciplines, which is especially valuable when studying urban systems that inherently require a multidisciplinary perspective for effective planning and management. This interaction with diverse viewpoints enriches not only my classroom environment but also my research program.

A Message of Gratitude

I wish to express my sincere gratitude in the creation of my position and the support to initiate my research program at the University of Delaware. There is an increased emphasis on urban resiliency and sustainability as global populations continually become urbanized, and now, more than ever, the importance of greenspace in our planning and management of urban systems is vital for more sustainable growth. I thank the Smith family for their foresight and recognition for supporting a position in this field.

Financial Summary for the
SMITH FAMILY FELLOWSHIP IN MARINE SCIENCE

Fiscal Year[1]	Book Value[2]	Market Value[3]	Gifts Received[4]
2014:	$187,845	$226,947	$10,000
2015:	$197,845	$232,501	$10,000
2016:	$217,845	$237,359	$20,000
2017:	$247,845	$286,868	$30,000
2018:	$267,845	$315,248	$20,000

The financial summary included above highlights the last five fiscal years only.

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JACK THOMPSON

Recipient of the Smith Family Fellowship in Marine Science

Graduation Year: 2018
Hometown: Wilmington, DE
Key Attributes: Dean's List Honoree, Graduate Student, Study Abroad Participant, Student Organization Leader, Research Participant

Please describe yourself and your UD experience, with regard to your campus involvement, accomplishments and interests.
I've been pursuing my MS in Marine Studies for the last two years. As a member of the Microbial Ecology Research Lab, I've been investigating the use of a bacterial algicide for controlling harmful algal blooms in the Delaware Inland Bays. I've been on several advisory communities for the College of Earth, Ocean and Environment (CEOE) and served as a co-chair for the Graduate Student Association. I'm interested in not only microbiology and algae, but also marine systems that employ photosynthesis like coral reefs.

Why did you choose your field of study and what do you enjoy most about it?
I've wanted to be a marine biologist since I was a child, and the specific research path I've followed has been a combination of passion and opportunity. My undergraduate research on coral reefs with outstanding professors and my current MS research have both been extremely fulfilling and have prepared me well for a variety of potential jobs moving forward.

What do you love about UD and how has your experience here changed your life?
Pertaining to my graduate experience, I've really enjoyed living in the Lewes area and being a part of the community of graduate students in CEOE. It has been such a unique experience to be a part of the Lewes University community.

Why are you grateful for this support and what it has allowed you to accomplish?
Thank you very much for your generosity! This fellowship helped fund me to go to the 9th US Harmful Algal Bloom Symposium, which was a research conference where I was able to learn about ongoing algal research, network with professionals in the field, and present my own research to the greater scientific community. Your support has helped prepare me for a successful future in my field!

Financial Summary for the SMITH FAMILY SCHOLARSHIP

Fiscal Year[1]	Book Value[2]	Market Value[3]	Gifts Received[4]
2014:	$274,605	$325,657	$20,625
2015:	$283,133	$327,881	$8,528
2016:	$318,363	$340,716	$35,230
2017:	$360,693	$410,538	$42,330
2018:	$408,668	$470,583	$47,975

The financial summary included above highlights the last five fiscal years only.

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[4] This column indicates the cumulative sum of gifts made to this endowed fund during the fiscal year.

MICHEAL JOHNS

Recipient of the Smith Family Scholarship

Graduation Year: 2019
Hometown: Newark, DE
Major: Chemical Engineering
Minors: Biochemical Engineering and Economics
Key Attributes: Dean's List Honoree, Honors Program Student, Study Abroad Participant and Research Participant, First Generation College Student

Please describe yourself and your UD experience, with regard to your campus involvement, accomplishments and interests.
I've been a part of the chemical engineering and honors program, as well as a member of both the Swimming Club and the American Institute of Chemical Engineers chapter on campus since my first semester. I have also done computational research with the Catalysis Center for Energy Innovation, laboratory research with Professor Roberts, and I currently have an internship at Delaware Innovation Space.

Why did you choose your field of study and what do you enjoy most about it?
In high school, the subjects I enjoyed the most and excelled at were calculus, statistics and chemistry. I enjoy the constant challenges, problem solving and critical thinking that come with this major. I've also always liked business and economics, which led me to pick up a minor in economics and will hopefully lead me to getting my MBA after I graduate.

What do you love about UD and how has your experience here changed your life?
I love the countless opportunities offered by UD. Whether it be the vast number of majors and minors, the expansive study abroad program, the clubs and activities, or the ability to conduct research in your field of interest, UD lets you become the student you want to be.

Why are you grateful for this support and what it has allowed you to accomplish?
My family has felt a large financial stress putting three kids through college. I greatly appreciate this support as I have been able to get one of the best educations possible in my field of study and take advantage of study abroad programs that I likely would not have been able to do at any other school. I feel like by choosing UD and getting this support from scholarships, I am able to take full advantage of all the school has to offer me, whereas anywhere else, I would have been much more restricted.

YOUR 2018 IMPACT REPORT

UNIVERSITY OF DELAWARE

SARAH STUDENT-ATHLETE

Facility Impact Student-Athlete for John and Jane Smith

In appreciation of your generous support of the athletic facilities project, we are excited to pair you with a current student-athlete who, over the course of construction of the Whitney Athletic Center, will be able to share with you how your gift toward the athletic facilities will impact their experience as a Delaware student-athlete.

While this student-athlete will not directly receive financial support from your gift, their student-athlete experience will be greatly impacted by your gift toward the building of the Whitney Athletic Center, and they would like to express their gratitude for your generosity, on behalf of all student-athletes.

Sport: Track-Indoor-Women, Track-Outdoor-Women
Graduation Year: 2022
Hometown: Bear, DE
Major: Criminal Justice

Please describe yourself and your UD experience, with regard to your campus involvement, accomplishments and interests.
I am majoring in criminal justice and I am considering picking up a double major in sociology and a minor in Spanish. After college my dream is to go to law school to become a lawyer and maybe open up my own law firm. I want to take up law due to the fact that I want to fight for people to get a second chance in life. I am also a mid-distance sprinter on the women's track and field team.

What is your favorite thing about being a part of your specific sport program?
My favorite thing about being on the women's track and field team is being able to interact with students who have the same interest as me. We all work hard and want to be better than we were the year before. Being on the team allows me to form friendships that I hope will last a lifetime. Due to the fact that we are with each other every day it allows us to get to know each other and become really close throughout the season.

What does it mean to you to be a student-athlete and Fightin' Blue Hen?
Being a Fightin' Blue Hen means you are someone that is proud to represent the state of Delaware and you are honored to compete on behave of our school with that dignity. Being a student-athlete means that you are someone who requires a lot of dedication and skill in order to successfully excel in both your academics and athletic career. Being a student-athlete is someone who helps represent the schools talent both athletically and academically.

Why are you grateful for donors' support of athletics facilities, and what will it allow you and your peers to accomplish?

I am grateful for the donor's support of the athletics facilities due to the fact that it will be able to better the performance of all athletic sports. With new equipment and facilities it will help us be able to perform at a higher level. Allowing us to improve our training facilities will allow us to be able to be more competitive when it comes to our competitions. We will feel more confident and better prepared to go against our components motivating everyone as a whole to win. Not only that their donations mean that they see the potential in the upcoming teams and they believe in our success. Our goal as a team is to win another championship and hopefully with this new equipment that will be possible.

ATHLETICS FACILITIES UPDATE

Excerpts from UDaily Article by Athletics Department Staff | Architectural renderings by HOK | November 17, 2018

Renovation of Delaware Stadium and creation of the Whitney Athletic Center will begin at the conclusion of the 2018 football season. The projects are the focus of the $60 million Build Our Home fundraising initiative for athletics, which is one of the priorities of Delaware First: The Campaign for the University of Delaware.

The Whitney Athletic Center, which will be completed by the summer of 2020, will provide academic support and athletic training and well-being facilities for student-athletes. The center will be named for UD alumnus and Board of Trustees member Kenneth C. Whitney, Class of 1980, and his wife, Elizabeth K. Whitney, in recognition of their cornerstone gift of $10 million.

The Athletic Department will release ticket and parking information for current and new football season ticket members in January. The completion of the west side stands and the press box is set for the fall of 2019. The Whitney Athletic Center will be completed by the summer of 2020.

Building Our Home

The plan to rebuild and reinvest in athletic facilities is intended to enhance the experience of the entire Blue Hens community and includes several phases. During this first phase, fans, students and student-athletes will see the following changes:

- Renovating the west side of Delaware Stadium.
- Chair backs for all seats in the middle three sections (C, D, E).
- Upgraded restrooms and concessions.
- Stadium Club space with bar, food and exclusive club seating.
- Enhanced press box, including game-day production spaces and coaches' booths.
- Construction of a new athletic center for all UD student-athletes that will extend along the stadium's western facade to include:
- Student Success Center
    - Integrated space for academic support, career preparation and leadership development.

    - Tutoring, mentoring, academic advising and study areas.
    - Academic lounge to build community and foster inter-team bonding.
    - Multipurpose rooms for guest lectures and press conferences.
- Health & Well-Being Center:
- 10,000-square-foot strength and conditioning space to accommodate multiple teams simultaneously.
- Enhanced athletic training space with satellite area for physical therapy partnership.
- Grab-and-go healthy food options selected by a UD nutritionist.
- Sports psychology areas to provide mental health resources through private consultations, team workshops and athlete educational sessions.
- Hydrotherapy tubs for rejuvenation and therapeutic needs.

A key addition to the athletics campus will be the new 10,000-square-foot strength and conditioning space to meet the needs of every Blue Hen student-athlete. Inside, more than 100 can lift weights simultaneously, eliminating the present need for separate shifts to allow everyone use of the facilities. The new space will also house a much larger training room, which will get rid of long lines that stretch into the hallway during midday practices.

In addition, the center will have an X-ray machine, hydrotherapy tubs, computer stations and more academic resource space. It will also house offices for health and wellness (strength and conditioning, athletic training, sports medicine, nutrition and sports psychology), as well as student success (academic support, leadership development and career preparation), and include common areas so that all UD student-athletes can spend more time together across teams. Perhaps most importantly, the new athletic center will bring together the entire athletic community and save student athletes a considerable amount of travel time by centralizing all resources in a single, state-of-the-art facility.

To maximize use of these new resources, the athletic department will make the new hydrotherapy tubs available to UD's Physical Therapy Clinic, the nation's No. 1 ranked program, and the stadium's club level will be available to rent for private events such as weddings and banquets. Ground-floor kitchen space will be used to teach student-athletes healthy cooking techniques (using food grown at the nearby College of Agriculture and Natural Resources) when they are not being used to prepare food for the concession stands on game days.

HOK has been contracted as the architect, while EDiS/Barton Malow will be the construction firm completing this phase. This portion of the project is the first of several phases which will enhance the Dave Nelson Athletics Complex as a whole. Following the completion of fundraising, for Phase 1, focus will shift to future phases of Build Our Home, which will include the Delaware Field House and seating on the east side and in the end zones of Delaware Stadium.

A Message of Gratitude from the Director of Athletics and Recreation Services

We are grateful for the commitment shown by our donors to this project. As we work every day to be a national model for student success, seeking comprehensive excellence in all we do, this facility will serve as the lifeblood for those efforts, positively impacting our student-athletes and fans for years to come. Thank you so much for supporting UD Athletics.

UNIVERSITY OF DELAWARE

83 East Main Street, 3rd Floor
Newark, DE 19716

YOUR 2018 IMPACT REPORT

DEVELOPMENT & ALUMNI RELATIONS

DELAWARE **FIRST**

THE CAMPAIGN FOR THE UNIVERSITY OF DELAWARE

YOUR 2018
IMPACT REPORT

UNIVERSITY OF DELAWARE

THANK YOU FOR YOUR LOYAL SUPPORT

Philanthropy impacts every facet of UD's campus community and encourages faculty, staff and students to bring their ideas to life and to further initiatives that benefit our world.

If you have questions or would like to receive more information about giving opportunities, please contact the Office of Development and Alumni Relations at 302-831-2104 or donor-relations@udel.edu.

THANK YOU

FOR HELPING TO MAKE THE REMARKABLE HAPPEN AT UD AND IN COMMUNITIES BEYOND CAMPUS!

JULY 2018

DR. CHARLES A. ALLARD CHAIR IN DIABETES RESEARCH

Dr. Peter Light, Director, Alberta Diabetes Institute

UNIVERSITY OF ALBERTA

Dr. Peter Light

Research Summary

Dr. Peter Light holds the Dr. Charles A. Allard Chair in Diabetes Research as Director of the Alberta Diabetes Institute (ADI).

ADI brings together some of the world's best diabetes researchers and their teams under one roof—supporting collaboration between research labs from disciplines that range from cell biology to nutrition/metabolism to indigenous peoples health and epidemiology, providing an environment where research is integrated into practical applications.

Diabetes touches more than 11 million Canadians who are living with diabetes or prediabetes, and a new diagnosis of diabetes happens every three minutes. The cost of diabetes burdens both our health care system and the people and families managing this disease.

There is currently no cure for diabetes. However, life-changing therapies, basic scientific and clinical trial research are all progressing at the ADI. The ADI's members relentless pursuit of the discovery of new therapies and methods to prevent, treat and ultimately cure diabetes have put the University of Alberta on the map.

Research Progress

In addition to his leadership role in the ADI, Light has his own high-quality diabetes research program. Light has assembled a diverse team of diabetes researchers; together they continue to pursue multiple research hypotheses and share the team's collective diabetes research initiatives and successes. With increased collaboration between researchers from across disciplines and institutes, Light and others are addressing major issues with islet transplantation, from immune rejection to immune tolerance and insulin-secreting beta cell regeneration and survival.

In late 2017, Light and his team published a landmark paper that reported an exciting discovery that received international media coverage: human fat cells beneath the skin are sensitive to sunlight. Dr. Peter Light's team also discovered that human islets produce large amounts of the anti-diabetic GLP-1 peptide hormone that can be manipulated with the gliptin class of anti-diabetic drugs identifying an unappreciated source of GLP-1 with implications for type 1 and type 2 diabetes. Finally, another team of ADI researchers, including Dr. Light discovered a novel molecular mechanism by which the clinically used SGLT2 inhibitor drugs reduce the risk of cardiovascular disease in patients with diabetes.

Research Highlights

Bioengineering for Type 1 diabetes. The Light lab is bioengineering a patient's own fat cells to secrete insulin in a controllable manner using pulses of harmless wavelength of blue light. Such an approach may open up a new needle-free treatment for many patients with type 1 diabetes. In the last year, Light and his researchers have completely redesigned viral vectors to optimize the % of cells that are bioengineered. They will be collaborating with Dr. James Shapiro's lab to test this technology in a mouse model of subcutaneous transplantation. **Dr. Wenton Long**, a three-year JDRF-funded post-doctoral fellow who joined the team in 2015, is working full-time on this exciting project.

A novel light-sensitive pathway in white fat cells. Light's team has discovered a blue light-stimulated current in dysfunctional white adipose tissue (WAT), a key factor in the development of obesity, diabetes and cardiovascular disease (CVD). Importantly, this pathway is also activated at physiological intensities of blue light that penetrate the skin on a sunny day. These results were published in *Scientific Reports* (Nov 2017) and received extensive international media attention (Global TV, CTV National, CBC and CHED local radio, podcasts and many newspaper articles in

Siyapreet, diagnosed with type 1 diabetes in 2016, also has celiac disease. Both are autoimmune disorders that are a result of the body's immune system attacking healthy cells. (Photo: Richard Siemens)

the Independent, Men's Health and Oprah Magazine). A 5-year $688,000 operating grant on this topic was recently funded by the Canadian Institutes of Health Research (Jan 2018). This ongoing project therefore represents the first steps in elucidating the role that ambient daylight may play in regulating subcutaneous WAT function in health and diabetes.

Hot chili peppers, vitamin D and Type 1 Diabetes. In the last year, Light's team has discovered a novel cellular target for vitamin D in immune T-cells – the TRPV1 channel that is also the target for capsaicin, the pungent compound found in chili peppers. This is the first known report of a target that is independent of the vitamin D receptor. Vitamin D deficiency is associated with a higher risk of developing/triggering type 1 diabetes as this important vitamin is known to modulate immune cell function. Therefore, these findings have implications for our understanding of how the immune system is regulated and may go awry in type 1 diabetes. Light is collaborating on this project with **Dr. Troy Baldwin** (UofA) and **Dr. Carolin Daniel** (Munich, Germany) on T-cell function as well as **Dr. Joanne Lemieux** (UofA) on molecular modeling. A paper detailing these findings will be submitted for publication in 2018.

Human intra-islet glucagon-like peptide-1 (GLP-1). Light has an ongoing interest in the use and role of GLP-1 mimetics in the treatment of diabetes. In the last few years, his team has discovered that human pancreatic islets are capable of making and secreting large quantities of this anti-diabetic peptide with implications for diabetes in humans. To date the majority of studies have focused on rodent islets, and these latest results highlight the importance of "intra-islet" GLP-1 in human health and diabetes. Specifically,

in the last year the Light team found that human islets from donors with type 2 diabetes actually possess more GLP-1 secreting cells than found in non-diabetic donors islets and that GLP-1 produced from these cells is very important in supporting insulin secretion in Type 2 diabetes.

Moreover, the action of this GLP-1 can be enhanced by the DPP4 class of anti-diabetic drug leading to increased survival of the islet cells in type 2 diabetes. A paper detailing these findings is in preparation and will be submitted for publication in 2018.

Engineering regulatory T-cells to target islets in type 1 diabetes. The overall objective of this team initiative is to develop a novel way to cure type 1 diabetes (T1D) by reducing the autoimmune destruction of islet ß-cells and promoting regeneration of the patient's own ß-cells. In the last year, Light and his team have 1) recruited an outstanding new investigator, Dr. Sue Tsai; 2) secured $250,000 in start-up funds for her research; 3) raised $250,000 in operational funding; and 4) hired an excellent post-doctoral fellow, **Dr. Dominic Golec**, to work on this project full-time.

Anti-diabetic sulfonylurea drugs and cardiotoxicity. Light's interest in the sulfonylurea class of drugs that are commonly used to treat diabetes will provide an understanding of how this class of drugs may actually be toxic to the heart during and after a heart attack. Such an improved understanding may lead to a change in prescription guidelines surrounding the use of sulfonylurea drugs in diabetic patients with existing heart disease and a higher risk of a heart attack. In the last year, his laboratory has discovered that certain sulfonylureas inhibit the protective effects of membrane stretch, suggesting that these drugs may affect the heart's normal response to increased work load such as exercise, thus contributing to the cardiotoxicity associated with these drugs. A paper detailing these findings was published in the *Journal of Molecular and Cellular Cardiology* (July 2017). A five-year grant to fund this project was recently awarded by the Canadian Institutes of Health Research ($755,440 in total funding).

Type 1 Diabetes: A disease of ß-cell insufficiency and autoimmunity. T1D is an autoimmune disease, which typically begins in childhood (though can start at any time), resulting from a combination of environmental influences and genetic predisposition that lead to destruction of the insulin releasing ß-cells in the pancreas. Recent developments in our understanding of 1) the immunological processes involved with the development and progression of T1D; 2) how the immune system self-regulates; and 3) how new ß-cells may be regenerated opens up the distinct possibility to develop therapeutic interventions to cure T1D through a combination of immune-modulatory and ß-cell regeneration strategies. Successful long-term treatment, or even a cure, for T1D will require a multifaceted approach to: 1) prevent autoimmune destruction of beta cells and re-establish immunological tolerance to islet self-antigens through the therapeutic manipulation of the immune system by down-regulating the destructive T-cells and inducing tolerance through using islet-specific regulatory T-cells (Treg); 2) preserve existing ß-cell function and mass, while promoting regeneration of new ß-cells.

Impact. Light's team believes that these strategies are not mutually exclusive but will likely need to be combined for the development of innovative and successful therapies. For example, if they succeed in inducing immune tolerance to prevent further ß-cell destruction, the patient will have to rely on the function of a very low or negligible number of remaining ß-cells that may take many years to slowly regenerate, if at all. By combining immune tolerance with ß-cell regenerative strategies, the balance could swing in favour of sufficient ß-cells needed to essentially allow many more T1D patients to have needle-free "normal" control of their blood glucose levels – effectively curing T1D.

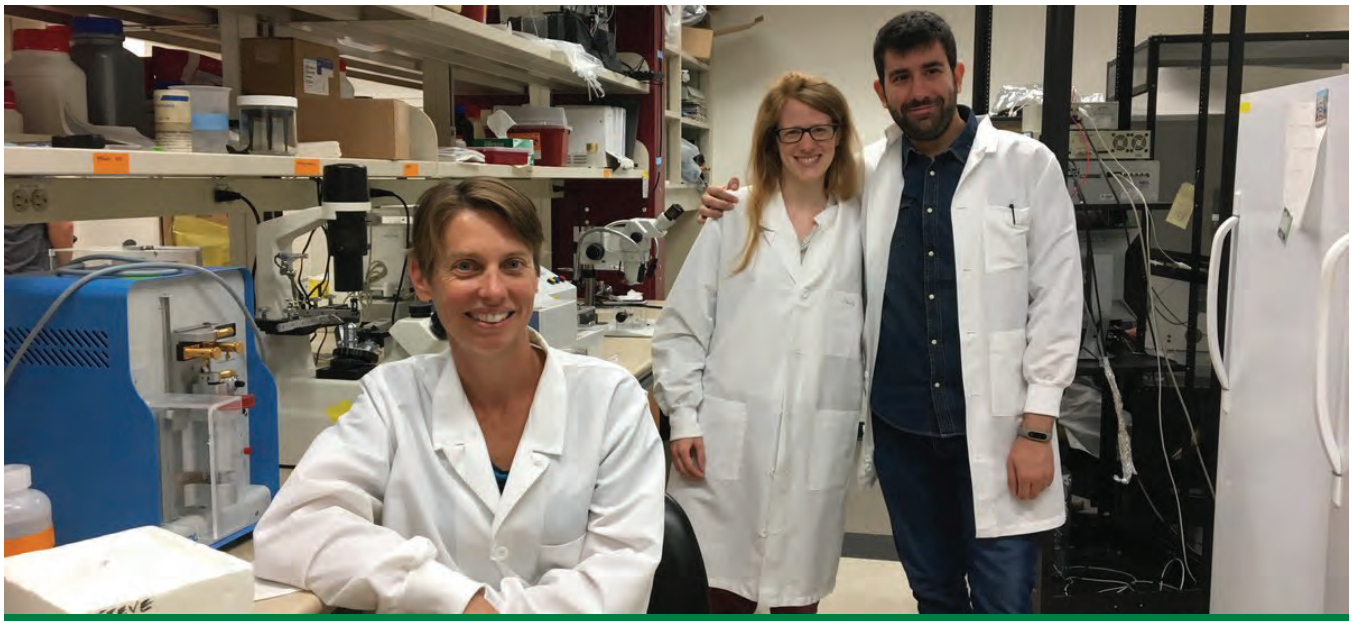
The ADI's approach to re-establish immunological tolerance. Edmonton is a leading centre for cardiac surgery in western Canada, with approximately 500 pediatric cardiac surgeries performed each year. Notably, thymus tissue is routinely removed during pediatric cardiac surgeries, as it obstructs the retrosternal operative field. However, discarded pediatric thymi serve as a rich source of immunosuppressive Treg cells

ADI trainees

that can be isolated and used as a tolerance-inducing tool in numerous disease settings. Currently, work aimed at producing good manufacturing practice (GMP) quality human thymus-derived Treg cells for use as an "off-the-shelf" cellular therapeutic is well underway within the Alberta Transplant Institute in collaboration with **Dr. Lori West**, Departments of Pediatrics, Surgery and Medical Microbiology & Immunology. In addition, strategies are being developed to engineer islet-specific Treg cells to be used as a finely targeted cellular therapy for inducing immune tolerance in T1D. Preliminary experiments aimed at testing the feasibility of this approach show that, through using lentivirus based gene transfer technology, robust expression of genes of interest in human thymus-derived Treg cells can be achieved, paving the way for the development of islet-specific Treg cells. Given the potential to develop GMP quality islet-specific Treg cells in the facilities at the U of A, collaboration between researchers at the Alberta Diabetes and Alberta Transplant Institutes places Edmonton as an ideal centre for the development of novel Treg-based therapies for T1D.

Metabolites that may cause Type 2 Diabetes. In 2013, Light collaborated with **Dr. Robert Gerzstein**'s research team at Harvard and discovered that in humans the serum levels of the metabolite 2-amino adipic acid (2-AAA) is strongly associated with pre-diabetes and diabetes. Furthermore, this metabolite directly affects human islet function (*Journal of Clinical Investigation 2013*). In the last few years, Light's team has been actively pursuing the cellular mechanisms by which 2-AAA directly affects islet function and lead to diabetes. In the last year, they found that 2-AAA reduces the ability of islet cells to resist oxidative stress by decreasing the anti-oxidant capacity within the cells.

SGLT2 inhibitors and Cardiovacular Disease. The SGLT2 inhibitors are a major class of anti-diabetic drug that lower glucose by inhibiting glucose re-uptake in the kidney leading to excretion of glucose in the urine and the lowering of blood glucose. However, recent clinical trial data (e.g. see EMPA-REG and CVD-REAL trial data) indicate that these drugs drastically lower the risk for HF by 39% and the risk of ventricular arrhythmias



Lea and Ciro from the Herzig lab (with Joss, front), both learned whole-cell patch-clamping on islet cells while working in the lab

by 30%. As the majority of patients with heart failure do not have diabetes, there is an opportunity—through rationale drug design—to develop new drugs to reduce heart failure and associated arrhythmias without any glucose lowering effects. A report of invention was filed in March 2018, while novel small molecules are currently being synthesized.

Collaborative Research Highlights

Canada–Munich Diabetes Research Exchange

The ADI welcomed eight PhD candidates from the Helmholtz Diabetes Centre (HDC; Munich, Germany) from May 12–19, 2018. Together with ADI students, they presented research, discussed ideas with experts in the diabetes field, and visited and trained in ADI labs for an intensive one-week course focusing on translational diabetes research.

Hands-on introduction into clinical research expanded possibilities and ideas, taking fundamental research to the next step and towards patient care. Workshops on career planning addressed setting and achieving career goals, as well as working in Canada. Importantly, meeting other students, thinking outside of the box and networking opportunities were supported during joint evening program and with a visit to Elk Island National Park. An extended report on Exchange 2018 is available at *helmholtzresearchschool-diabetes.org/*.

Partnership forms New International Diabetes Research School

Earlier this year, the ADI officially joined forces with the Helmholtz Diabetes Centre to form the International Helmholtz Research School for Diabetes. This school will provide an interdisciplinary and internationally cutting-edge scientific and training environment for future world leaders in diabetes research. Light anticipates graduates will become leaders in the field and spearhead future research to overcome diabetes in the long run.

With financial support for attending international conferences and for research stays at other institutions, international networking will enable students to establish contacts across the globe while developing a scientific network. A six-month mobility program between the Helmholtz and the ADI will promote interdisciplinary collaboration on doctoral projects, enable technology and knowledge transfers, and will provide a unique international research opportunity for students.

Combining research at these two facilities allows for the generation and planning of exceptional dissertation topics, with research in Munich and Edmonton centered on major

New Members & Trainees

The Alberta Diabetes Institute provides an optimal training environment for over 120 MSc and PhD students as well as over 40 post-doctoral fellows annually, supervised by Institute members.

Financial support is provided by the Institute through various bursaries and awards, including summer studentships. In the past five years, ADI trainees and post-doctoral fellows have received 174 institutional, 105 provincial and 124 national or international awards and prizes. For example, in summer 2017, six students were awarded $28,000 each based on reviewed research proposals. Soni Shubham's project, *Assessing the roles of TRPV1 channels and vitamin D in regulating immune T-cell function*, was supervised by Light.

Anissa Gamble, diagnosed with type 1 at age 8, is a master's student researching diabetes at the University of Alberta (supervisor James Shapiro). She is looking at how different cell types could help islet transplants become even more successful, and while her work is still in the trial stages, she is already witnessing the progress of type 1 diabetes research.

challenges in today's diabetes research and state-of-the-art technologies and approaches. Faculty at both institutes are among the world's leading researchers with proven expertise regarding the successful training of young researchers.

Of Note

The Faculty of Medicine & Dentistry held its inaugural **Festival of Health**—a public event— in June 2017.

The Institute also continued its annual Seminar Series with 12 research-focused presentations open to graduate trainees, guest speakers, ADI members and supervisors.

On October 5, 2017, ADI held its annual **Research Day** event with keynote speaker **Dr. Megan Levings** (BC Children's Hospital) on "Regulatory T cells in diabetes: biomarkers, antigen specificity, and clinical trials." This annual event is intended to showcase the research efforts of ADI trainees – the next generation of diabetes researchers. Trainees presented a total of 57 presentations: 12 full oral presentations; eight mini oral presentations; and 37 poster presentations to their peers and senior scientists.

The theme of **World Diabetes Day**, Nov. 14, 2017 was "Women and diabetes—our right to a healthy future." The ADI marked the day with a 10-year anniversary celebration—10 years of world-class and leading-edge type 1 and type 2 diabetes research, funded through large-scale research grants, strategic partnerships, and philanthropy. **Dr. Timothy Kieffer** delivered the keynote address at the Ray Gall Memorial Visiting Professorship lecture that evening, hosted by Dr. James Shapiro.

The ADI also unveiled ***Portraits of Diabetes***, a celebration of this 10-year milestone. This series of 12 portraits by U of A photographer Richard Siemens, who was diagnosed in 1959 with type 1 diabetes, delves into the day-to-day realities of the million Albertans who have diabetes or pre-diabetes. This series received the Council for Advancement and Support of Education's Gold Award for photography in 2018. The Council is an international association of educational institutions and this award provided outstanding recognition for ADI.

https://www.ualberta.ca/alberta-diabetes/about/10-years/portraits-of-diabetes

In June 2018, ADI members **Dr. James Shapiro** and **Dr. Patrick MacDonald** received respectively the **Diabetes Canada Lifetime Achievement Award** (established in 2007, the year the ADI opened its doors) and the **Diabetes Canada Young Scientist Award** established in 1987. Previous recipients of this national recognition include **Dr. Ray Rajotte** (Lifetime Achievement Award in 2010) and ADI Director Light (Young Scientist Award in 2007).

James Shapiro with his team in the U of A's Clinical Islet Transplant Program. Shapiro developed the Edmonton Protocol for treating Type 1 diabetes after performing the world's first human islet cell transplant in 1999. Since then, 626 patients have been treated using the protocol, and the U of A runs the world's largest islet cell transplant clinic. (Photo: Richard Siemens)

Peer-reviewed Papers

- Zheng W, Cai R, Hofmann L, Nesin V, Hu Q, Long W, Fatehi M, Liu X, Hussein S, Kong T, Li J, **Light PE**, Tang J, Flockerzi V, Tsiokas L, Chen XZ. Direct binding between Pre-S1 and TRP-like domains in TRPP channels mediates gating and functional regulation by PIP2. *Cell Reports* 2018 Feb 6;22(6):1560-1573.
- Zheng W, Hu R, Cai R, Hofmann L, Hu Q, Fatehi M, Long W, Kong T, Tang J, **Light PE**, Flockerzi V, Cao Y, Chen XZ. Identification and characterization of hydrophobic gate residues in TRP channels. *The FASEB Journal* 2018 Feb;32(2):639-653.
- Ondrusova K, Fatehi M, Barr A, Czarnecka Z, Long W, Suzuki K, Campbell S, Philippaert K, Hubert M, Tredget E, Kwan P, Touret N, Wabitsch M, Lee KY, **Light PE**. Subcutaneous white adipocytes express a light sensitive signaling pathway mediated via a melanopsin/TRPC channel axis. *Scientific Reports* 7(1):16332 (Nov 27, 2017).
- Youssef N, Campbell S, Barr A, Gandhi M, Hunter B, Dolinksy V, Dyck JRB, Clanachan AS, **Light PE**. Hearts lacking plasma-membrane KATP channels display changes in basal aerobic metabolic substrate preference and AMPK activity. *American Journal of Physiology-Heart and Circulatory Physiology*. 313(3):H469-H478 (Sept 1 2017) [June 30 2017 Epub].

Presentations

- Towards a cure for diabetes. **Alberta Diabetes Foundation TYPE TALKS**, Alberta Children's Hospital, Calgary, AB, April 12, 2018.
- **Q&A Information Session with Diabetes Experts**. March 15, 2018, Alberta Diabetes Institute, UofA. Free event, open to the public.

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Alberta Diabetes INSTITUTE

UNIVERSITY OF ALBERTA

UNIVERSITY OF ALBERTA

SEPTEMBER 2017

FACULTY OF EDUCATION: RESEARCH & EDUCATIONAL INITIATIVES

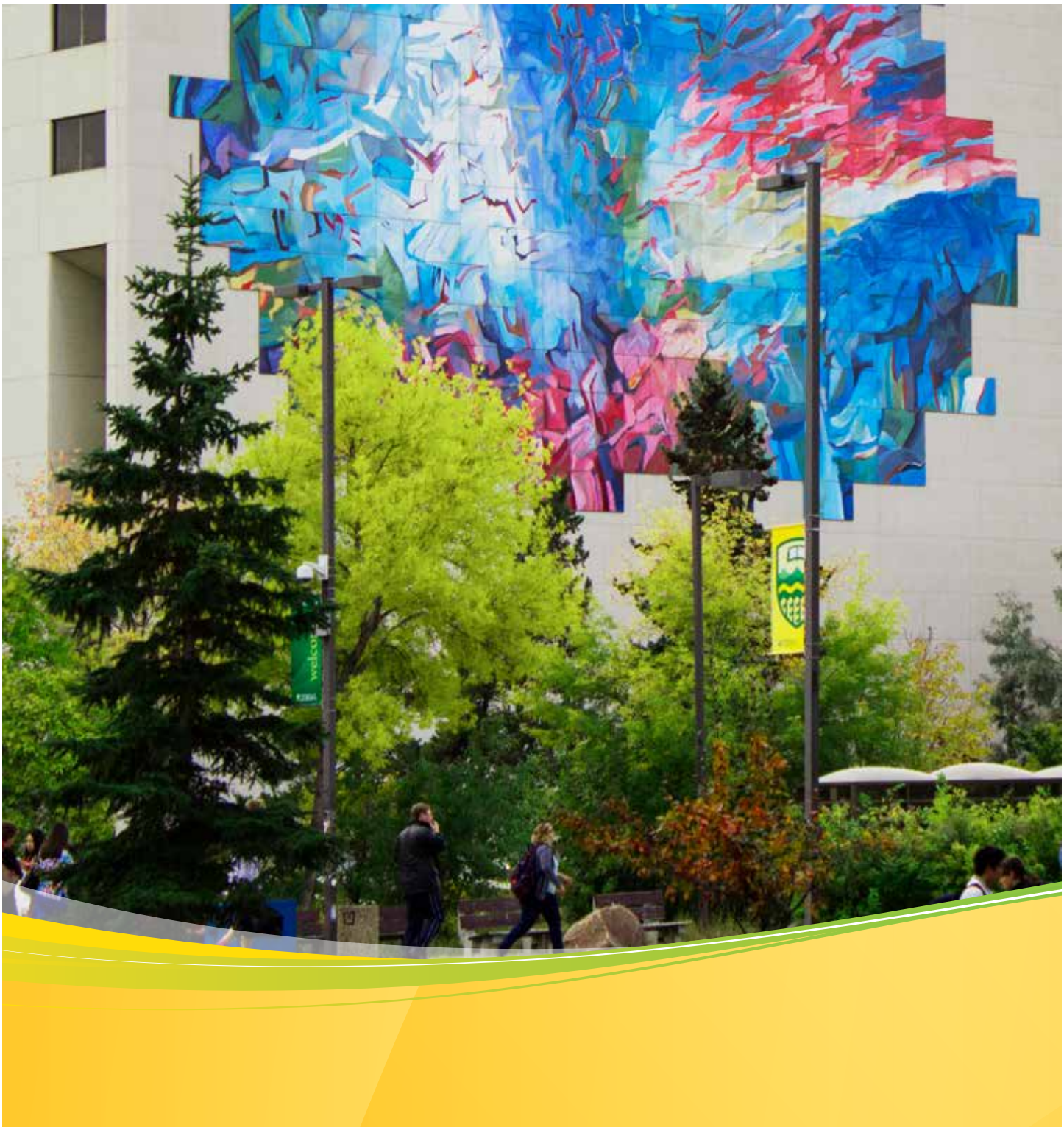

Photo by John Ulan

MESSAGE FROM THE DEAN

I am excited and honoured to return to my alma mater, assume the role of Dean of the Faculty of Education, and begin to connect with our outstanding alumni. One of the things that drew me back to the University of Alberta was the vibrancy of our alumni community; the relationships established here are strong and many have thrived for decades.

The Faculty of Education at the University of Alberta is an exciting collection of faculty, staff, students, and researchers. We work together to impact school-aged children and youth, educational practice and policy, and marginalized young people including Indigenous, Métis, and LGTBQ youth. Our alumni are frequently an integral part of this work.

Educational research and teaching initiatives are contributing to positive social change, from making children's sports safer to supporting Syrian refugees, giving hope and so much more. All of this happens daily in our faculty, as we work together to make a difference in our communities. I am delighted to introduce three of our outstanding researchers and their work alongside some of our most ambitious programs.

We are grateful for our active and engaged alumni community and for the opportunity to share a part of our developing story with you.

Dr. Jennifer Tupper
Dean, Faculty of Education

Jennifer Tupper earned both her BEd (with Distinction) in Secondary Social Studies and her PhD in Secondary Education at the University of Alberta. She attended the University of British Columbia for her master's degree and has spent much of her academic career working with the University of Regina's Faculty of Education as a faculty member, Associate Dean of Faculty Development and Human Resources, and Dean.

A specialist in treaty education, Dr. Tupper brings a passion and commitment to excellence in teaching and research, as well as a strong commitment to responding to the Truth and Reconciliation Commission (TRC) Calls to Action.

MAKING CHILDREN'S PLAY SAFER: DR. MARTIN MRAZIK

Dr. Martin Mrazik, a neuropsychologist in the Faculty of Education, is looking at concussion prevention from a different angle, and his new research suggests that psychological factors could be predictors of injury. Mrazik is interested in what psychological outcomes arise from sport concussions and what psychological variables predict prolonged recovery from sport concussion. Additionally, together with other researchers at the U of A, he is interested in learning about biomechanical forces of concussions. Some of the questions Mrazik is exploring include: Are more anxious kids more prone to injury, and more prone to concussions? With psychological intervention, can we decrease the incidence of injury and concussion? Is there a vulnerable population that is more likely to get injured?

Having identified that personality traits like psychological resilience are likely associated with decreased incidence of injury and better recovery times, Mrazik is focused on maximizing interventions that target these variables. He looks at kids who have the highest levels of psychological stressors like anxiety and mood disturbances to see if they are more likely to suffer injuries and take longer to recover. If that is indeed the case, something can be done.

Mrazik and his colleagues, Dr. Connie Lebrun and principal investigator Dr. Carolyn Emery of the University of Calgary, are influencing policy-makers in government and sport. In a cross-Canada comparison between Alberta and Quebec done by Emery, the Albertan kids playing peewee hockey had three times as many severe injuries and three times as many concussions. Since then, Hockey Alberta implemented a no-checking rule in 2012. Now that the rules regarding checking in minor hockey have changed, the team is taking it a step further.

Throughout the fall and winter, the researchers collected data on injuries as they occurred. Parents took children who were injured on the ice to the U of A's Glen Sather Sports Medicine Clinic, where medical evaluations were conducted, and a determination was made as to whether the young athlete was cleared for return to play. Concussions can happen in an instant, but recovery can take much longer and requires both mental and physical rest. In addition, it is often difficult for athletes who are normally very active to comprehend and self-enforce the necessity of rest for recovery.

Mrazik also works with the NHL and CFL on treating and managing concussions. Currently, UAlberta is involved in an international multi-cohort study investigating optimal treatments for athletes following sport concussion. This study involves all nine teams from the CFL as well as the university's athletic program. The goal is to establish a gold standard of rehabilitation after sport concussion for athletes of all ages, especially children and adolescents. An important component of this research is evaluating the short-term and long-term psychological and behavioral outcomes of sport concussions. Mrazik and his co-investigator, Dr. Dhiren Naidu, are collaborating with colleagues at the University of North Carolina, (Drs. Michael McCrea, Kevin Guskiewicz, and Johna Register-Mihalik). In addition, through collaborations with Mechanical Engineering (Dr. Chris Dennison), research regarding helmet safety standards and testing procedures are being developed. Overall, the ultimate goal is to establish a Center of Excellence for sport concussion that would encompass multiple disciplines and prioritize innovative research and clinical practice.

SUPPORTING SYRIAN REFUGEES: DR. SOPHIE YOHANI

Dr. Sophie Yohani is an associate professor of counselling psychology and a psychologist with a specialization in childhood and adult trauma as well as refugee and migrant mental health. She is originally from Tanzania and has training and experience in global mental health, psychotrauma, and community development. She is also the co-director of the Faculty of Education's Division of Clinical Services, a training clinic for graduate students in the Counselling, School and Child Clinical Psychology programs at the University of Alberta. Yohani teaches and supervises students in the latter programs, and situates her pedagogy and research within multicultural counselling and education.

Yohani's interests lie in multicultural counselling and the mental health and psychosocial adaptation of refugees and migrants influenced by pre- and post-migration experiences as well as practice and policy implications in education, health care, and community settings. Refugee mental health is a growing area of research, both internationally and in the Canadian context. While there is increased understanding of the impact of war and conflict on children and adults, gaps remain in the literature regarding how individuals adapt after trauma and what mechanisms can facilitate this. Her research activities and publications examine psychosocial adaptation, trauma and mental health service delivery using resilience, hope, critical multicultural counselling, and feminist theories.

Current projects include a study exploring the mental health and adaptation of survivors of the 1994 genocide who are residing in Canada, a collaboration with a colleague from the University of Calgary; two projects examining the psychosocial adaptation of Syrian families with young children and community-based mental health promotion within the Syrian community; and an examination of counselling practices with refugees and immigrants.

At the end of September 2016, 1,671 of 95,700 Edmonton Public Schools students were refugees. Many schools are unprepared to meet the often complex needs of refugee students. Yohani and her colleague Dr. Anna Kirova, a professor of early childhood education, began a bi-weekly webinar series featuring experts in the complexities of resettlement. Each webinar featured an academic, an expert from a community organization, and an educator. The series included 16 webinars from September 2016 through April 2017. The intent of this initiative was to help newcomers feel welcome; encourage teachers to learn more about trauma; assess the learning of non-English speakers; and support transitions to work and university—with the overall goal of recreating the critical foundation of safety, routines, and stability.

Yohani is also an adjunct visiting professor in the Clinical Psychology Program, Department of Psychiatry and Mental Health at Muhimbili University of Health and Allied Sciences (MUHAS) in Tanzania.


1032
Hope House
HOPE HOUSE

GIVING HOPE: DR. DENISE LARSEN

Hope Studies Central is a research unit with a 25-year history in the University of Alberta's Faculty of Education and the only one of its kind in the world. As Team Lead for Hope Studies Central, Dr. Denise Larsen's research explores hope from both health (specifically counselling psychology) and educational perspectives, focusing on the role and application of hope—particularly within professional caregiving interactions. She works in collaboration with an established network of colleagues—all academic researchers from across a variety of disciplines and universities—as well as graduate and international student researchers and visiting professors on sabbatical study.

Hope is crucial to overcoming human difficulties and flourishing. It empowers children with learning disabilities to tackle studies vital to their futures, motivates those facing difficult or unjust human circumstance to imagine a new future and overcome the odds, and mobilizes individuals with serious illnesses to discover a life worth living. The value and centrality of hope is found across cultures, while the study of hope is a vast field commonly associated with positive psychology. In virtually every tested condition, hope has been associated with desirable outcomes.

Larsen's community-embedded research includes individual, group, couples, and career and peer counselling as well as educational contexts within classrooms. It addresses a diverse range of adults in need, including those facing job loss, mental illness, chronic pain, Parkinson's disease, and HIV/AIDS—all conditions subject to much higher rates of depression, immobilization, and suicide. Hope Studies research also focuses on youth development, especially for those facing difficult circumstances. This includes studies with street-involved youth, their social workers and teachers, and youth transitioning from permanent guardianship to independent living.

Hope Studies Central has two main goals: first, to continue to provide research-supported tools for health care professionals who are working with clients in what appear to be hopeless situations; and second, to be a good steward of applied hope research and continue to grow its already enormous roster of 4,500 freely accessible references in its Hope-Lit database. This unique database supports hope research and practice with a comprehensive and searchable large-scale index of English-language hope research and literature that is free of charge and available internationally.

Having worked as both an elementary school teacher in an inner-city school and a doctoral intern and psychologist at the Cross Cancer Institute, Larsen sees an enormous demand for hope-related research, particularly in the education and health-care fields. In her role as a professor of counselling psychology at the University of Alberta, she offers a course entitled Hope and the Helping Relationship. Together with her students, she examines the role of hope in children's healthy development, childhood sexual abuse recovery, reintegration counselling following incarceration, family therapy, and meaningful aging.

> *"Our work is vital because the key to accessing the power of hope is knowing which interventions best foster hope under various conditions. While we know a great deal about the power of hope, most importantly we need to know what to do with hope in order to change lives. Hope Studies is devoted to top quality research on hope in action."*

Camp fYrefly participants

INSTITUTE FOR SEXUAL MINORITY STUDIES & SERVICES

The Institute for Sexual Minority Studies and Services (iSMSS) at the University of Alberta brings together education, research, policy development, and community services in order to ensure that sexual and gender minorities (SGM) are recognized and well-served by their communities. Staff and faculty are committed to working with communities and stakeholders to build a more inclusive, diverse, and respectful society.

Hundreds of sexual and gender minority youth have been helped by a variety of evidence-informed and research-based programs. Projects like NoHomophobes.com have raised the awareness of millions of people around the world of the homophobic language used in daily online conversation. This is groundbreaking work that is leading social change and helping to build a more just society for everyone.

iSMSS' primary goal is to help LGBTQ2S+ youth grow into healthy, happy, and resilient adults with its innovative and award-winning programs like Camp fYrefly, the Family Resilience Project, and the Queer History Project. The institute offers professional development services in the form of evidence-informed presentations and individualized case consultations for K-12 schools, government, non-profit, and community-based agencies. iSMSS also has a national impact on policy and services for sexual and gender minorities through its work with various agencies and organizations including the Office of Canada's Chief Public Health Officer, the Canadian Teachers' Federation, and the Public Health Agency of Canada.

ABORIGINAL TEACHER EDUCATION PROGRAM

The Aboriginal Teacher Education Program (ATEP) is an elementary off-campus, community-based collaborative cohort program designed to improve the educational success of Aboriginal children by increasing the number of Aboriginal teachers with an understanding of Aboriginal culture and perspectives in Northern Alberta communities. Working collaboratively with northern colleges, ATEP is able to provide students with the final 60 credits of university coursework required for a Bachelor of Education in Elementary Education. Since its beginnings in 2001, ATEP has graduated over 200 teachers.

An urban cohort at the University of Alberta in the Secondary Education Stream welcomed its first cohort of 11 students in September 2017. Future programs include cohorts with Portage College in Cold Lake (2018-2020) and Northern Lakes College (2018-2020). Northern Lakes College is a unique institution that serves a region covering 164,000 square kilometers and more than 30 communities, including 10 First Nations and four Métis Settlements.

While ATEP is intended for Indigenous students, all students are encouraged to apply.

YOUNG INDIGENOUS WOMEN'S CIRCLE OF LEADERSHIP

The Young Indigenous Women's Circle of Leadership (YIWCL) program has just completed its ninth year in the Faculty of Education. YIWCL is a summer program designed to reconnect young Indigenous girls, aged 10-16, with traditional Cree skills and culture, restoring some sense of identity and belonging while teaching valuable, traditional skills. The ability to pass on generational knowledge has been severely curtailed through the residential school system; the YIWCL attempts to provide girls with access to knowledge that—through no fault of their own—they do not possess.

Participants are immersed in Indigenous language, drama, dance, digital technologies, and leadership building through active discovery and exploration. Activities include beading techniques; performing traditional Cree songs, dances and prayers; speaking with elders; attending a sweat lodge ceremony; and harvesting wild sweetgrass and sage. By encouraging these girls to seek out and express their own answers in their own words, empowerment is consistently reinforced.

YIWCL was founded by UAlberta elementary education professor Heather Blair in 2008, and its popularity has increased annually. The program's content is delivered mainly in Cree and aligned with many of the calls to action from Canada's Truth and Reconciliation Commission. Hosting the program at the university fosters a sense of belonging among participants and encourages them to think about pursuing post-secondary education. The YIWCL welcomes at least two dozen girls annually and frequently has a waiting list. Expanding the program would allow the increased demand to be met and potentially develop a parallel track for Indigenous boys.

YIWCL participants

Photo by John Ulan

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University of Alberta, Edmonton, Alberta

UNIVERSITY OF ALBERTA

JUNE 2017

DAVID PEIKOFF CHAIR OF DEAF STUDIES

Dr. Lynn McQuarrie, Faculty of Education

UNIVERSITY OF ALBERTA

Dr. Lynn McQuarrie

Research & Teaching Summary

The Peikoff Endowment supports the research, teaching and community partnership projects of Dr. Lynn McQuarrie, David Peikoff Chair of Deaf Studies and Director, Western Canadian Centre for Deaf Studies (WCCDS). Dr. McQuarrie researches language and literacy acquisition in low incidence and under-represented student populations. She aims to understand reading acquisition in children who grow up in a dual-language environment (American Sign Language and English) as well as how signed and spoken languages interact to support reading. The Chair and Centre are both dedicated to translating science-based findings into real-world practices to strengthen the connections between research, policy and practice in order to improve educational outcomes and expand opportunities for Deaf and Hard of Hearing individuals.

Research & Teaching Progress

Research initiatives include the development and standardization of assessment tools for monitoring the normative process of signed language acquisition in Deaf children, a project in conjunction with colleagues at the University of Manitoba. Data collection to develop standardized norms for these assessments has kept McQuarrie and the Chair/Centre assessment team very active this year, as they are required to travel across North America to work with programs that have large numbers of Deaf children who use a signed language.

The lack of standardized, norm-referenced assessment instruments to measure the acquisition of signed language (i.e. American Sign Language/ ASL) skills in children creates an enormous gap in both research and education concerning young Deaf children and their development. Language researchers and educators have innumerable tests of spoken language appropriate for diverse stages of development, but very few normed and validated tests are available for signed languages for use by educators. This lack of established tests means that educators cannot determine whether the language acquisition of a given child is delayed, advanced or developing normally. Lack of valid tests makes it difficult to conduct outcome studies to determine whether an educational intervention enhances classroom achievement. This project aims to fill this void and meet the needs of teachers in providing appropriate educational programming, monitoring and reporting, while supporting and encouraging researchers to adopt more precise communications about diversity in child development.

McQuarrie has continued to develop effective, research-based instruction for preschool and K-12 Deaf and Hard of Hearing students through innovative dual language (American Sign Language - English), instruction tools, educational apps and literacy resources (i.e. a children's activity book and classroom posters for ASL Handshape Families). She also sponsored a small-scale study investigating lexical access and reading in young Deaf bilinguals conducted by WCCDS research affiliate and principal investigator, Erin Wilkinson (University of Manitoba) with co-investigators from the University of New Mexico, Gallaudet University, and University of California, San Diego.

McQuarrie's service and public engagement activities included advising U of A faculty about securing grant funding, reviewing grant applications for national and international colleagues and collaborating with community education partners on a national Youth

Additional Achievements

McQuarrie recruited and trained graduate and undergraduate students to work on Chair/Centre projects, providing research internships for two PhD students, one Masters' student and seven undergraduate students from faculties across campus. Over the past year, she supervised two research associates and two part-time project staff.

Teaching activities over the past year included two core graduate-level courses in Special Education for the Faculty of Education and support of a Teaching Assistantship for a PhD student to act as principal instructor for an undergraduate course in Deaf Education. McQuarrie served on six PhD and two MEd graduate committees.

Conference attendance:

- 43rd Annual Conference of the Association of College Educators – Deaf and Hard of Hearing, San Antonio, Texas (February 2017)
- 2nd International Conference on Teaching Deaf Learners, Amsterdam (March 2017)

McQuarrie and her research colleagues attending the 2017 Teaching Deaf Learners Conference in Amsterdam, Netherlands

Tournament for the Deaf event hosted in Edmonton in May 2017. McQuarrie and the Chair/Centre research team provided several presentations across campus and in the community this year: a research presentation on Bimodal Bilingualism at the Centre for Comparative Psycholinguistics; an awareness talk on working with Deaf and Hard of Hearing consumers for U of A Pharmacy students; and a WEB EX presentation on the impact of cognitive fatigue on Deaf and Hard of Hearing students in the classroom for teachers across Alberta involved with Alberta Education's Professional Learning Community of Practice (Deaf/Hard of Hearing).

Research and Teaching Plans for 2017-18

The endowed chair allows McQuarrie to conduct long-term studies and pursue a research program that will be sustainable into the future. In the upcoming year, she will continue to develop and strengthen collaborative research and educational partnerships to best further the Chair/WCCDS research agenda.

Graduate and undergraduate research internships supported by the endowment will continue to provide valuable training for the next generation of scholars. General operating costs for the Chair/WCCDS (i.e., project staff and administrative support) will also be supported.

The ASL Handshape Families Poster: A literacy resource for signed language phonological awareness instruction

Accomplishments

From 2010-2016, McQuarrie has led a government-funded Advancing Adolescent Reading Initiative (AARI) to develop and pilot a series of online interactive learning modules aimed at providing secondary classroom teachers (grades 7-12) with a deep understanding of language, reading and research-validated practices in adolescent literacy development. Building on the success of the AARI pilot, a proposal to establish a University Certificate in Advancing Adolescent Literacy (AAL) received university and government approval in February 2017. The AAL certificate program is unique in Alberta, in Canada and in North America in its scope and focus.

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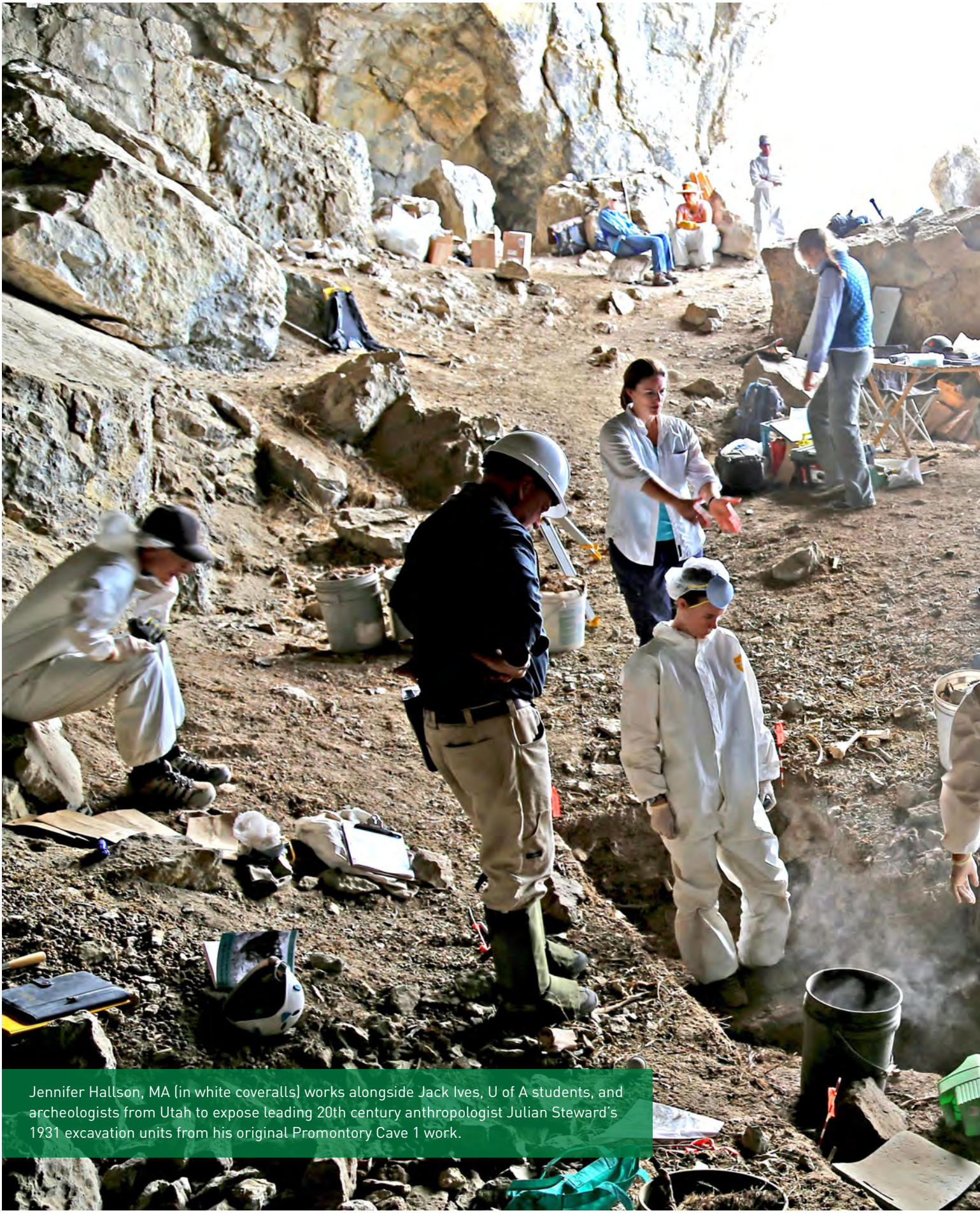
FEBRUARY 2018

LANDREX DISTINGUISHED PROFESSOR

IMPACT REPORT, 2012 - 2017

Professor John W. (Jack) Ives, Executive Director, *Institute of Prairie Archaeology*,
Department of Anthropology, University of Alberta

Artist: Shannon Ford/shannonford.ca



Jennifer Hallson, MA (in white coveralls) works alongside Jack Ives, U of A students, and archeologists from Utah to expose leading 20th century anthropologist Julian Steward's 1931 excavation units from his original Promontory Cave 1 work.

Executive Summary, Final Landrex Report

The 2012 Landrex Distinguished Professor award has enabled Professor John W. (Jack) Ives, Department of Anthropology, to make critical contributions to initiatives at the Institute of Prairie Archaeology (IPA). Highlights of the work conducted under Landrex auspices include:

1. Meeting and exceeding all key goals identified in Ives' successful 2012 Landrex application, notably:
    - Conducting effective field school activities at Ahai Mneh (on the Transalta lease near Lake Wabamun), the Mattheis Ranch (Rangeland Research Institute), Buffalo Lake Métis Wintering Settlement, and the Brazeau Reservoir (Archaeological Society of Alberta).
    - Advancing research on legacy projects, especially Besant-Sonota era sites in Alberta, Saskatchewan, Montana, and North and South Dakota, and late Ice Age and early Holocene archaeological collections in western Canada.
    - Achieving significant results for ethnogenetic studies of Apachean origins and their Canadian connection, as well as for Blackfoot peoples in southern Alberta.
    - Transitioning to new research directions for archaeological research in the oil sands region and a Neolithic site in Jilin, China that may be connected with incipient conditions in which cattle were domesticated from their wild ancestor (the aurochs).
2. Research and teaching activities from the last five years.
3. Graduate and undergraduate student scholarships, awards and recognition.
4. Professional employment for graduate students.
5. Synergies in leveraging the Social Sciences and Humanities Research Council (SSHRC), the Rangeland Research Institute (RRI), and the Kule Institute for Advanced Study funding, matching Landrex contributions.

Introduction

Intertwining professorial, Institute of Prairie Archaeology, and Landrex objectives has continued to be straightforward. Landrex support was an integral component of 2012-2017 activities, making possible or enhancing high-profile research objectives, graduate student endeavours, undergraduate mentoring, and public outreach opportunities.

Following is a review of the last five years of Landrex activities, documenting progress on the research streams identified in Ives' 2012 application, as well as the public and professional profile created through publications, outreach activities and an active program of public presentations.

Research Streams Identified in 2012

The 2012 Landrex application described four streams of research that would benefit from Landrex support. These were:

1. **Field School-related Activities:** Through the Institute of Prairie Archaeology (IPA), an archaeological field school was offered every second year. The excavation component of the course then involved the study of a 12,000 year-old site (Ahai-Mneh, FiPp-33) set aside by Transalta on a mine site south of Lake Wabamun, where the team worked closely with Transalta and Paul First Nation on initiatives ranging from a site-naming ceremony and visits from elders, to highly effective research and publication by graduate and undergraduate students. The 2012 field school offered the prospect of expanding field school work to survey activities on the Mattheis Ranch donated to the Rangeland Research Institute (RRI) of the Faculty of Agricultural, Life & Environmental Sciences (ALES), situated northwest of Brooks, Alberta.

2. **Legacy Research:** Another theme in IPA work was designed to return the Department of Anthropology to the activities of its founding faculty and students, incorporating new studies of existing collections with cutting edge investigation of important sites in the Capital Region and central Alberta. One example concerned Professor Emerita Ruth Gruhn's excavations at the Besant-era Muhlbach site in the Stettler area in the 1960s. One of a handful of such sites in western Canada, this 1600-year old bison kill was made by a group whose tool assemblage was dominated by Knife River flint. This kind of flint originates in North Dakota, more than 1,000 km away; despite the great distances involved, sites like Muhlbach reflect a close relationship between Alberta and Sonota sites along the Missouri River. The Muhlbach collection—particularly the faunal remains—had never been completely analyzed and reported.

   The second key component of legacy research involved outreach work with avocational collectors, reviewing their archaeological materials and maintaining databases on information collected. Focusing on the Paleoindian period, at the end of the Pleistocene (i.e. the Late Ice Age) and early Holocene in particular, the Western Canadian Fluted Point Data Base—which concerns the large spear and dart tips used in that era—was updated, maintained and mined for information that amateur collectors provided about the very earliest First Nations settlement of Alberta and, more broadly, western Canada.

3. **Ethnogenesis and Cultural Identities:** Little attention has been devoted to the emergence of Northern Plains peoples like the Blackfoot, Plains Cree and Assiniboine; this is particularly so for Dene or Athapaskan speakers. Most Canadian Dene live in the western Subarctic, but ca. 1200 years ago, closely related Navajo and Apache ancestors departed from Alberta toward their ultimate homes in the American Southwest. Apachean origins research had been a major focus of IPA work since 2007, and had been the subject of an initial Social Sciences and Humanities Research Council of Canada (SSHRC) grant in 2010. Landrex funding supported investigations of how historic and prehistoric cultural identities took shape in Alberta.

4. **New Research Directions:** The university has played a constructive role in the intensifying debate surrounding oil sands development. Little consideration has been given to the fate of archaeological heritage in the oil sands region; this archaeological record is finite and is being consumed at rapid rates. Simple but incisive new research measures could greatly improve both our understanding of the region's prehistory, as well as the conservation measures regulatory agencies apply in managing this archaeological record to higher standards. Toward the end of the Landrex term, Ives developed a proposal suggesting a shift to renewed work in this area with the objective of providing superior, efficient methods of conducting regulatory work, while providing new insights into the archaeological record of the lower Athabasca River and adjacent regions.


DuPont
ProShield
NexGen

Field school students surveying in the Brazeau Reservoir in May 2017, where the remains of a 12,500 year-old Pleistocene horse and other artifacts have been recovered.

Research Highlights

Landrex funding has been of greatest importance in furthering the Institute of Prairie Archaeology's work on the initial arrival of the First Nations people in Alberta at the end of the Ice Age, more than 13,000 years ago. UAlberta was invited to make a plenary contribution to the 2013 *Paleoamerican Odyssey* volume, for which Ives provided the cover photograph of an early spear tip from the Cold Lake area.

Support from Landrex has helped elevate contributions to this research area (built upon museum and avocational archaeological collections in Alberta and western Canada), with contributions to journals outlining new thinking about the earliest indigenous populations in the Americas. An article was published in *Proceedings of the National Academy of Science U.S.A. (PNAS)*, and work is currently underway on co-authored pieces for *Science* and *Science Advances*.

Another major sphere of activity has concerned ethnogenesis and cultural identities. While Social Sciences and Humanities Research Council (SSHRC) funding has supported much of the Apachean origins research, Landrex support has and will continue to provide important supplemental funding. This research involves an exploration of the Canadian origin of southern Dene speakers, the Navajo and Apache of the American Southwest—especially through the extraordinarily preserved Promontory Point caves materials in Utah, where hundreds of moccasins and many other perishables from the A.D. 13th century have survived. Ives and his team produced journal articles and book chapters concerning this research.

Ives arranged a major symposium (featuring 16 papers) for their Promontory and related work for the 2017 Society for American Archaeology (SAA) meetings in Vancouver, the principal showcase for archaeological research in North America. The acquisitions editor for the University of Utah Press had previously invited UAlberta to submit a monograph (under longer term development) on their Promontory research for publication. Upon seeing the 2017 symposium papers, marking conclusions somewhat beyond the midway point of the research program, the editor also requested an edited volume of these papers for submission. This project is well underway, with 18 papers currently being written and edited. The SAA symposium was followed by a similar one for the Rocky Mountain Anthropological Conference held in September of 2017 in Canmore, Alberta. Five graduate students have made Apachean origins research the subject of their MA theses (three completed MA degrees, one in progress), along with three PhD students (two candidates, one just beginning her program).

Jennifer Hallson conducting MA research in Promontory Cave 1.

Aileen Reilly's convocation article concerning her Dene hide tanning research, including work at Promontory, was published on UAlberta's website.

The final stages of Ives' 2012 proposal called for a transition in research emphasis and a return to research topics he had pursued earlier in his career. One of these concerned Alberta's Oil Sands region, where he spent considerable research time in the 1970s and 1980s. Of course, historical resources in the lower Athabasca River Valley are under significant threat from massive development activities. The University of Alberta can provide a leadership role in understanding this unique archaeological record. Over the last two years, Ives and his students have been able to undertake significant new research concerning a database of some 1,500 archaeological sites and a raw stone material used for tool making (Beaver River Sandstone). Honours student Dale Fisher, winner of a Roger S. Smith scholarship, undertook exemplary research on prehistoric mobility, in conjunction with University of Alberta PhD candidates Todd Kristensen and Robin Woywitka—both permanent employees of the Archaeological Survey of Alberta—and current PhD student Andrew Lints, the 2016 University of Alberta nominee for the national SSHRC Talent Award.

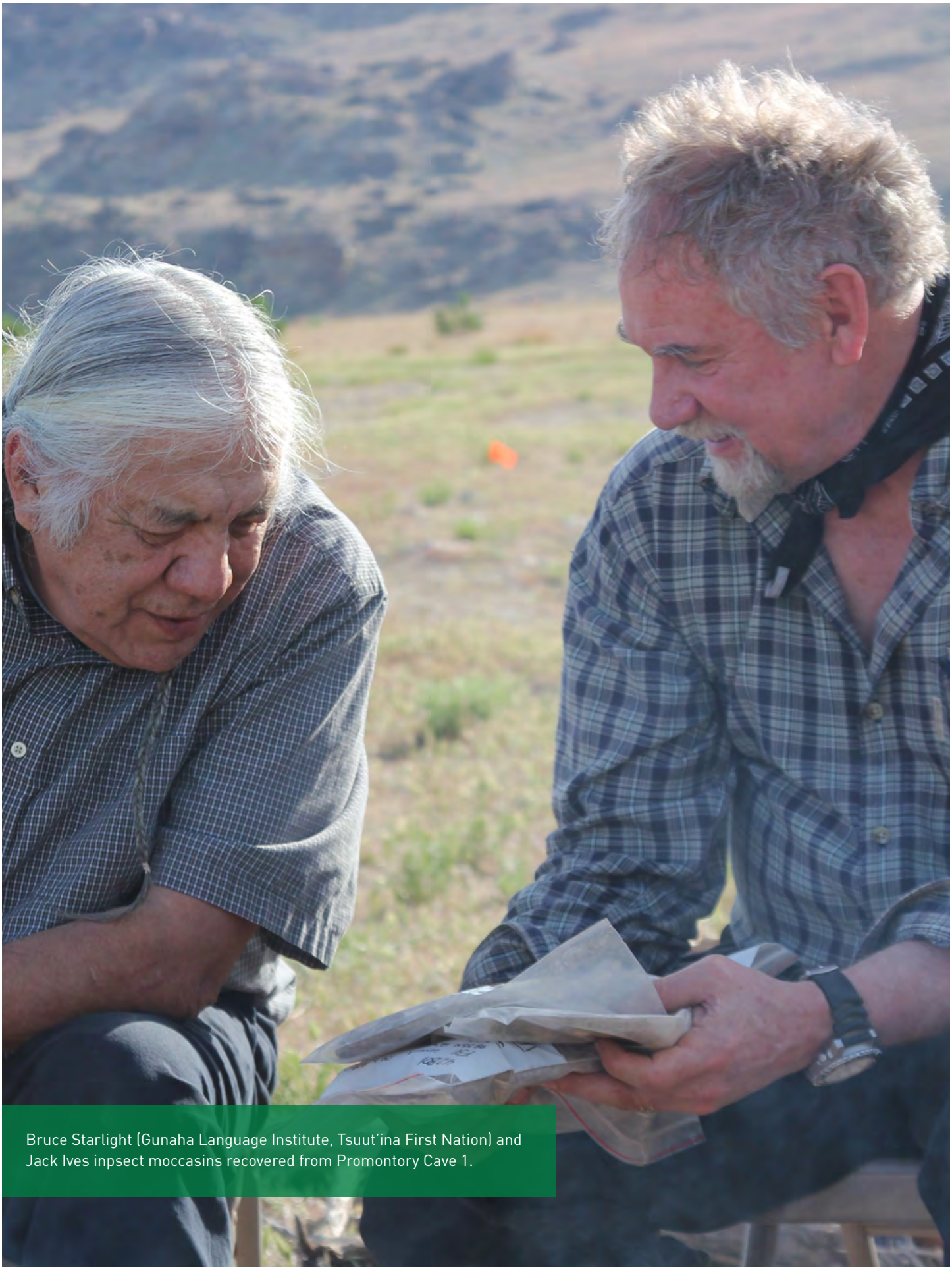
During Ives' governmental role as Director of the Archaeological Survey of Alberta, an influential Occasional Paper Series was published. This series was discontinued during the budget cuts of the 1990s. Happily, Woywitka and Kristensen have brought this Occasional Paper Series back to life in digital form. Together with Institute of Prairie Archaeology students, these UAlberta students contributed four papers to the inaugural return volume.

A second shift in focus concerned northeastern China. During Ives' time with the Royal Alberta Museum, he was responsible for scientific research and a major exhibition concerning Manchurian prehistory and history in collaboration with Alberta's sister province in northeast China, Heilongjiang. In 2016, Ives accepted an exceptional PhD student, Zhe Zhang, from Jilin province (also in northeast China). She was particularly interested in applying North American procedures used for studying bison kill bone beds to a unique assemblage of aurochs (*Bos primigenius*) bones that filled a trench partially surrounding a Neolithic occupation of the Houtaomuga site from 5,000 years ago. Aurochs are the wild ancestors of modern cattle, quite closely related to bison, and this feature is highly suggestive of extensive feasting—possibly indicating an incipient interest in cattle domestication in this region.

A trench at the Neolithic site of Houtaomuga, Jilin Province, China, choked with aurochs' bones.

Public and Professional Presentations

During Ives' tenure as the Landrex Distinguished Professor, he authored, co-authored or co-presented 46 oral papers and four posters. These were presented in public settings such as the Archaeological Society of Alberta (Annual General Meeting for the province; monthly meetings of Edmonton and Calgary Centres), the *Telus World of Science*, and the *Time Travellers International Lecture Series in Archaeology*, Royal Alberta Museum. Professional contexts included meetings of the Canadian Archaeological Association, the Society for American Archaeology, the Plains Anthropological Society, the Rocky Mountain Anthropological Society, the Dene Languages Conference, the Great Basin Anthropological Society, the American Quaternary Association, the Canadian Quaternary Association, the Colorado Council of Professional Archaeologists Conference, and the Canadian Anthropological Society/La Société Canadienne d'Anthropologie.



Bruce Starlight (Gunaha Language Institute, Tsuut'ina First Nation) and Jack Ives inpsect moccasins recovered from Promontory Cave 1.

Outreach

Ives also applied Landrex funding to support the Heritage Art Series, initiated by the Historical Resources Division, Alberta Culture and Tourism. Subject matter expertise was provided, as well as some financial support for artists' expenses and production costs. The Heritage Art Series is the creation of Ives' PhD student Todd Kristensen. Heritage Art Series original works are currently being displayed at the Institute of Prairie Archaeology in HUB mall, where thousands of people see them every day.

Shannon Ford, Night Bison

Jenny Keith, Ice Fishing

"The Heritage Art Series is a collaboration of the Historic Resources Management Branch, the University of Alberta, and the Royal Alberta Museum. Each artwork shares an important story about the people of our province: we hope it fosters a greater awareness of our past and instills a deeper respect for it." - RETROactive: Blogging Alberta's Historic Places

Synergies with Additional Funding Sources

Landrex funding allowed for significant synergies with funding from other sources. This included a major Social Sciences and Humanities Research Council (SSHRC) Insight Grant for Apachean origins research (*Apachean Origins: New Explorations of the Canadian Heritage of A.D. 13th Century Dene at Promontory Point, Utah*), two successful grant applications to the Rangeland Research Institute, Faculty of Agriculture, Life, & Environmental Sciences (*Baseline Archaeological Research for the Mattheis and Kinsella Ranches*), and a grant from the Kule Institute for Advanced Study (co-PI with former Landrex Professor Sally Rice, *Documenting the Dene Diaspora: Toward a Living Digital Archive of Dene Languages and Cultures*).

Graduate students working on Institute of Prairie Archaeology initiatives also enjoyed considerable funding success from SSHRC (three PhD scholarships, three MA scholarships), China Scholarship Council (one), Alberta Gaming Research Institute (one scholarship renewed three times), Canadian Circumpolar Institute (three) and Alberta Historical Resources Foundation Scholarships (five). Two undergraduates working directly on Landrex-related research also received Roger S. Smith scholarships. The total value of student scholarship activity in the five-year Landrex period was well over $500,000.

Employment Record for Graduate Students 2012 - 2017

Students in the program have been very successful in securing permanent, professional appointments. Current and former graduates hold the following positions:

- Gabriel Yanicki (MA, PhD Candidate): Curator of Western Canadian Archaeology, Canadian Museum of History.
- Todd Kristensen (PhD Candidate): Staff Archaeologist, Archaeological Survey, Historic Resource Management Branch, Alberta Culture and Tourism.
- Aileen Reilly (MA): Academic Support Coordinator, Faculty of Law, University of Alberta.
- Courtney Lakevold (MA): Archaeological Information Coordinator, Archaeological Survey, Historic Resource Management Branch, Alberta Culture and Tourism.
- Jennifer Hallson (MA): Indigenous Consultation Administrator, DEMA Land Services.
- Reid Graham (MA): Consulting Archaeologist, Tree Time Services, Inc.
- Peter Stewart (MA): Consulting Archaeologist, Western Heritage Services.

The employment prospects for other current students are most positive.

Teaching

During the Landrex period, Ives taught the following courses:

ANTHR 256: Alberta Archaeology
ANTHR 311: North American Prehistory
ANTHR 396: Archaeological Field Methods
ANTHR 481: Development of Anthropological Archaeology
ANTHR 491: Stone Tools
ANTHR 486/586: Migration & Archaeology
ANTHR 484/584: Plains Archaeology
ANTHR 486/586: The Paleoindian Phenomenon

Bruce Starlight of Tsuut'ina First Nation conveying Treaty 7 oral traditions to field school students at the Mattheis Ranch after a medicine pipe ceremony.

ANTHR 256 (Alberta Archaeology) and **ANTHR 396** (Archaeological Field Methods) were the most significant offerings from the perspective of the Landrex Professorship. The Alberta Archaeology course reached a variety of students in Arts, Science, and other faculties. While some students have been recruited to the anthropology program, half or more of the enrolled students in recent years are in Education and seek indigenous content relevant to the Truth and Reconciliation Commission's objectives. This course provides a firm grounding in over 13,000 years of First Nations habitation in Alberta prior to Euro-Canadian presence. Most students found the term project a highlight; using actual artifacts from the Royal Alberta Museum's Val Diederich collection, students illustrated aspects of real sites in modern day Edmonton, from Rabbit Hill to the Strathcona Science Park. Through the 1950s and 1960s collections activities of Mr. Diederich in the greater Edmonton region, students were given "hands on" opportunities to identify, assess, and see what is normally hidden from view in Edmonton.

ANTHR 396, the archaeological field school, provided a singular opportunity to prepare students for professional life, to experience archaeological survey and excavation techniques, and to meet and learn from First Nations elders and ceremonialists. In 2012, Ives and his team completed extensive excavations at the Ahai Mneh site near Lake Wabamun and shifted their attention to the Rangeland Research Institute at the Mattheis Ranch. During Ives' sabbatical in 2013-2014, Dr. Kisha Supernant, Associate Director for the Institute of Prairie Archaeology, invited the field school to the Buffalo Lake Métis Wintering Settlement and the Kinsella Research Station (Rangeland Research Institute). The team's current work at the Mattheis Ranch involves exploration of a bison kill, camp and processing area—as well as related sites that include a Medicine Wheel—from roughly A.D. 800-1000, a timeframe when Blackfoot material culture becomes particularly clear in the archaeological record.

Renowned Cold Lake artist Alex Janvier, Ives, Sally Rice, Bruce Starlight and other dignitaries at the second Dene Migration workshop in September 2017, again held at Tsuut'ina First Nation outside of Calgary. (Photo courtesy of Gabriel Yanicki)

Other Recent Activities

Landrex funding has influenced many more areas of Institute of Prairie Archaeology work. Two recent examples include the convening of a second Dene Migration Workshop, attended by Navajo Apache, California, and Canadian speakers of Dene languages as well as scholars including linguists, archaeologists and historians. The workshop focused on an international sense of Dene identity that extends from Mexico to the Arctic, and research concerning the prehistory of this—the most widely dispersed language family in the Americas, a consequence of significant past migrations.

A second example concerns the work of Mr. Eugene Gryba, who has practiced as an archaeological consultant based in Calgary over the last forty years. Eugene has a separate life as one of the elite stone tool makers in the world; he is frequently called upon by French, Scandinavian and American experts to replicate the manufacture of historical stone tools. Landrex funding made it possible for Eugene to join Ives' ANTHR 491 Stone Tools course, alongside other invitees that included graduate students and Archaeological Survey of Alberta and Royal Alberta Museum staff members. Working directly with students, Eugene also made a series of rarer stone tools that will provide an excellent teaching resource in years to come. He left not only the tools, but all the by-products of making the tools—something commonly found in the archaeological record that students need to be able to recognize.

Honours student Dale Fisher and Eugene Gryba

Blair First Rider, Kainai Horn Society elder and Aboriginal Consultation Advisor, and Jack Ives at the Mattheis Ranch.


KleenGuard
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From left, Jack Ives with Kiana Chournos; her daughter; Grant Smith, MA, Brigham Young University; and Gabriel Yanicki, PhD student at U of A working in the foreground. Kiana is the daughter of Kumeroa and George Chournos, landowners who allowed researchers access to the caves and worked alongside them daily. Kumeroa is indigenous (from a distinguished Maori family), while George's family has a ranching history. Kiana is married to a Navajo man. One day, Kumeroa said to her grand-daughter as she held her, "Perhaps your ancestors were in this cave!"

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UNIVERSITY OF ALBERTA

JUNE 2018

DAVID PEIKOFF CHAIR OF DEAF STUDIES

Dr. Lynn McQuarrie, Faculty of Education

UNIVERSITY OF ALBERTA

Dr. Lynn McQuarrie

Research Summary

The Peikoff Endowment supports the research, teaching and community partnership projects of Dr. Lynn McQuarrie, David Peikoff Chair of Deaf Studies and Director, Western Canadian Centre for Deaf Studies (WCCDS). McQuarrie researches language and literacy acquisition in low incidence and under-represented student populations. She aims to understand reading acquisition in children who grow up in a dual-language environment (American Sign Language and English) as well as how signed and spoken languages interact to support reading. The Chair and Centre are dedicated to translating science-based findings into real-world practices to strengthen the connections between research, policy and practice in order to improve educational outcomes and expand opportunities for Deaf and Hard of Hearing individuals.

Work Progress

Research Activities

Research initiatives to develop and standardize American Signed Language (ASL) assessment instruments for use in research and educational practice continued to be supported this year. The research team had a busy year of data collection, thanks to collaborative partnerships established with Schools for the Deaf across North America, who championed test development and norming/standardization efforts. There is a critical need to balance the numerous and diverse language measures available to assess spoken languages with the scarcity of measures to assess signed languages, as formal signed language assessment tools are frequently missing in bilingual educational programs for deaf students. Culturally relevant methods—including signed languages—are essential in measuring deaf children's multiple languages to ensure appropriate and fair evaluation of their overall linguistic and literacy competence.

Developing translational products and tools that support application of research to classroom practice continued over the past year. Grounded in previous research demonstrating that ASL phonology is a facilitative gateway into early reading in English for bilingual Deaf learners (e.g., McQuarrie & Enns, 2015; McQuarrie & Abbott, 2013), this initiative aims to improve signed language phonological awareness and reading skills in young Deaf children through development of skill-builder learning games. The touch-tablet technology used in this work is highly motivating, easily accessible and transportable. These innovative dual language (American Sign Language – English) educational apps were developed through collaborative co- design with young Deaf children (ages 6-13) and piloted in K-12 programs serving deaf or hard of hearing (D/HH) children throughout the year.

Teaching Activities:

Teaching activities over the past year included one undergraduate course (Introduction to Deaf Education) for the Faculty of Education and support of a teaching assistantship for a PhD student to act as principal instructor for an undergraduate course in reading education. McQuarrie served on four PhD and two MEd graduate committees, as an external examiner for a Deaf student's thesis defense (UBC), and provided ongoing research consultation to two PhD students investigating language and literacy development in deaf learners (Loma Linda University and at University of Tennessee). She also recruited and trained graduate and undergraduate students to work on Chair/Centre projects, providing research internships for three graduate and two undergraduate students in the Faculty of Education and four undergraduate students from faculties across campus. Over the past year, she supervised two research associates and two part-time project staff.

Assessment Team - CSDR

Research Plans 2018-19

The endowed chair allows McQuarrie to conduct long-term studies and pursue a research program that will be sustainable into the future. In the upcoming year, she will continue to develop and strengthen collaborative research and educational partnerships to best further the Chair/WCCDS research agenda.

Graduate and undergraduate research internships supported by the endowment will continue to provide valuable training for the next generation of scholars. General operating costs for the Chair/WCCDS (i.e., project staff and administrative support) will also be supported.

Service and Public Engagement Activities

The Chair/WCCDS research associates continued to engage in provincial and national outreach, community engagement, and knowledge mobilization initiatives that support community capacity building and access to equitable opportunity for deaf and hard of hearing individuals. These activities included:

- Hosting the 2017 Jones Memorial Lecture in Deafness, an endowed research lecture for campus and community partners on issues of relevance to deaf and hard of hearing Canadians. This year, the public lecture highlighted research on the educational experiences of students who are D/HH in inclusive educational settings. Dr. Natalia Rohatyn-Martin's lecture titled *Working toward barrier free education: Utilizing perspectives of students who are D/HH to address concerns of fatigue, isolation and access* was very well received locally and nationally by deaf community members, educators, academics and students attending in-person and via our live stream link.
- The Chair and WCCDS research associates provided consultation, workshops, presentations, and webinars for D/HH stakeholders, including the Alberta School for the Deaf (EPSB), the provincial D/HH Professional Learning Consortium (Alberta Education), Catholic Social Services (Deaf Immigrant Services), NorQuest College, Lakeland College (Interpreting Program), and nationally to the Happy Hands Club for Deaf Seniors (British Columbia) and the Canadian Cultural Society for the Deaf (Ontario).

U of A Open House

- The Chair/WCCDS participated as an exhibitor at the University of Alberta Student Accessibility Services Open House (September 2017), UAlberta Open House (October, 2017) and the International Day of Persons with Disabilities (IDPD) celebration (December, 2017).

Additional Accomplishments

Conference Presentations

McQuarrie, L., Enns, C., Lam, E., & Yong, S. (2018, June). *Innovative technologies: Developing dual language (American Sign Language and English) literacy apps with & for Deaf children*. Paper presented at the 3rd International Conference on Sign Language Acquisition (ICSLA), Istanbul, Turkey.

Enns, C. & McQuarrie, L. (2018, June). *Culturally relevant Signed Language assessment*. Poster presented at the 3rd International Conference on Sign Language Acquisition (ICSLA), Istanbul, Turkey.

Enns, C., McQuarrie, L., Cundy, L. & Zimmer, K (2018, February). *Assessing children's development of American Sign Language*. Paper presented at the 43rd Annual Conference of the Association of College Educators - Deaf and Hard of Hearing (ACE-D/HH), Tucson, AZ.

McQuarrie, L. & Enns, C. (2018, January). *Measuring language: Development of American Sign Language assessment measures*. Poster presented at the 16th Annual Hawaii International Conference on Education, Honolulu, HI.

McQuarrie, L., Lam, Y., & Yong, S. (2018, January). *Digital inclusion through co-design with Deaf children*. Poster presented at the 16th Annual Hawaii International Conference on Education, Honolulu, HI.

Publications

McQuarrie, L., Bury, L., & Yong, S. (2018). ASL Handshapes I SPY Activity Book. Victoria, BC: Friesen Press.

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The arrival of bison in North America marks one of the most successful large-mammal dispersals from Asia within the last million years, yet the timing and nature of this event remain poorly determined.....

Fossil and genomic evidence constrains the timing of bison arrival in North America

Duane Froese[a,1], Mathias Stiller[b,c], Peter D. Heintzman[b], Alberto V. Reyes[a], Grant D. Zazula[d], André E. R. Soares[b],Matthias Meyer[e], Elizabeth Hall[d], Britta J. L. Jensen[a,f], Lee J. Arnold[g], Ross D. E. MacPhee[h], and Beth Shapiro[b,i,1]

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Although not an author of this paper on the oldest bison in North America, PNAS requested the use of my Elk Island photograph for that issue's cover.

Edited by Donald K. Grayson, University of Washington, Seattle, WA, and approved February 3, 2017 (received for review December 20, 2016).

Cover image: Pictured is a lightly scavenged bison skeleton from Yellowstone National Park. The shorter, inward curving horns of this modern plains bison stand in marked contrast to the massive flaring horns the bison's Pleistocene steppe ancestors, which, similar to humans may have used an Ice Free Corridor to disperse between Beringia and North America. Phylogeographic analysis of late Pleistocene bison fossils suggests that a habitable corridor may have existed prior to 13,000 years ago, findings that highlight the use of phylogeographic techniques in paleoecological history studies. See the introduction by John C. Avise et al. to the Sackler Colloquium on In Light of Evolution X: Comparative Phylogeography on pages 7957-7961. *Image courtesy of Kim Ives (British Columbia Institute of Technology, Vancouver)*, from Heintzman, Peter D., Duane G. Froese, John W. Ives, André E. R. Soares, Grant D. Zazula, Brandon Letts, Thomas D. Andrews, Jonathan C. Driver, Elizabeth Hall, P. Gregory Hare, Christopher N. Jass, Glen MacKay, John R. Southon, Mathias Stiller, Robin Woywitka, Marc A. Suchard and Beth Shapiro, 2016, Bison Phylogeography Constrains Dispersal and Viability of the 'Ice Free Corridor' in Western Canada. *Proceedings of the National Academy of Science USA* 113(29):8057-8063. www.pnas.org/cgi/doi/10.1073/pnas.1601077113

The Ice Free Corridor has been invoked as a route for Pleistocene human and animal dispersals between eastern Beringia and more southerly areas of North America. Despite the significance of the corridor, there are limited data for when and how the sorridor was

Bison phylogeography constrains dispersal and viability of the Ice Free Corridor in western Canada

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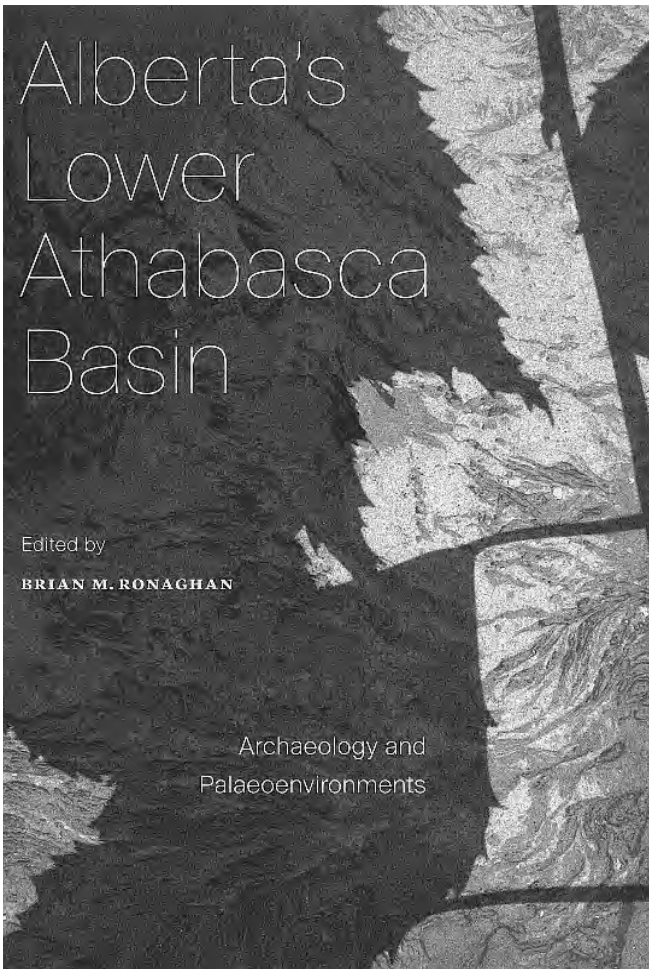
Edited by Francisco J. Ayala, University of California, Irvine, CA, and approved March 16, 2016 (received for review February 6, 2016)

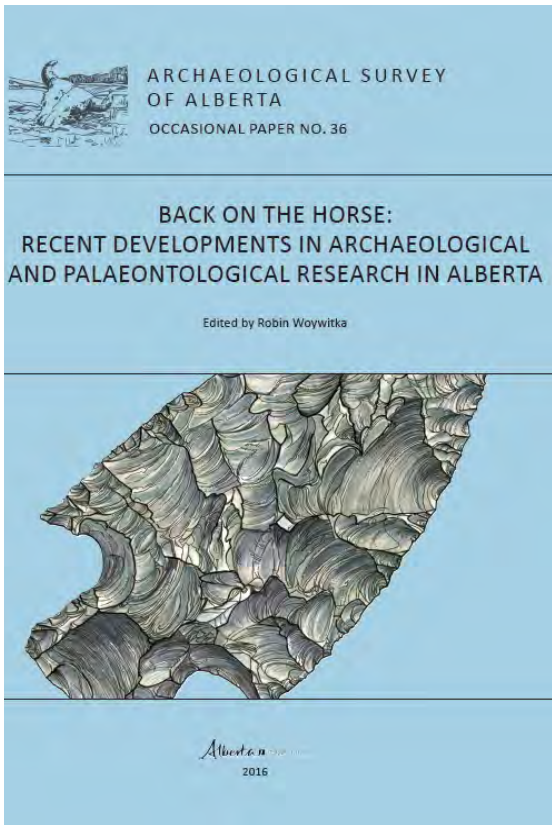


8 The Early Human History of the Birch Mountains Uplands

John W. Ives

Wednesday 5th Northerly wind with Cloudy weather all day & Cold about 10 o Clock there arrived two Achibawayans from Lack de Brochet with two trains of meat, at 4 O Clock Savoyard Arrived from St. Germain with 15 fathom of Bark which he Raised at the Mountain, St. Germain Sent word that he was not Shour whether he could find more or not. Journal entry for 5 April 1786, "The English River Book," Hudson's Bay Company Archives F.2/1

The Birch Mountains made their appearance in Euro-Canadian fur trade literature in 1786, with these first remarks in the "English River Book" (Duckworth 1990). This journal, probably authored by Cuthbert Grant, recounts events as Peter Pond engaged in spring trade with Dene Sutine (Chipewyan), Dane-zaa (Beaver), and Cree bands at his post on the lower reaches of the Athabasca River. The "Mountain" of the passage above undoubtedly refers to today's Birch Mountains, which were frequently mentioned in the early fur trade literature as the "Bark" Mountains. That Paul St. Germain, also known as "Buffalo Head," sent birchbark for canoes from the Birch Mountains should not surprise us....



Back on the horse: Recent developments in archaeological and palaeontological research in Alberta

ARCHAEOLOGICAL SURVEY OF ALBERTA

OCCASIONAL PAPER NO. 36

An AMS radiocarbon age for the pathological vertebra of a bison from near Pibroch, north central Alberta

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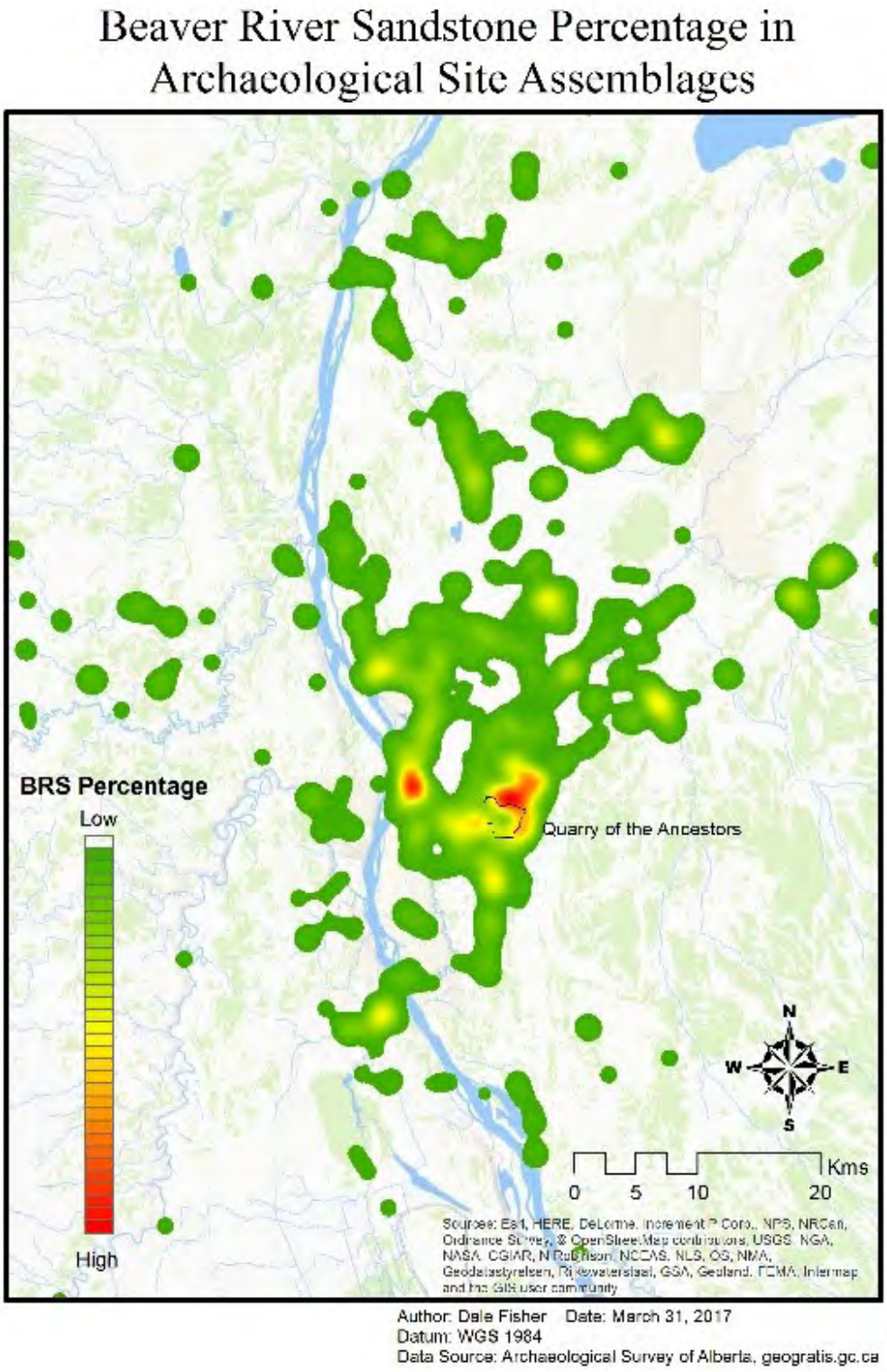
ABSTRACT

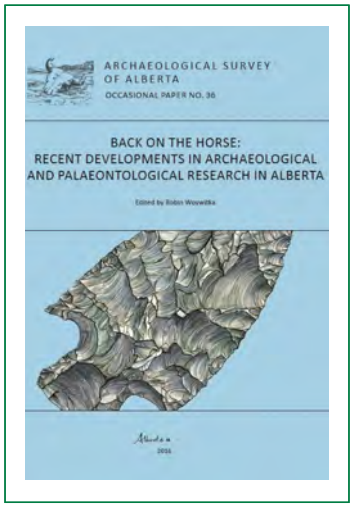
For a number of years, the Royal Alberta Museum displayed a seventh cervical bison vertebra from north central Alberta that exhibited a severe pathology resulting from a humanly inflicted wound. We make a detailed description of this specimen and the embedded projectile point fragment that caused the pathology to form. The vertebra was sampled and yielded an Oxford Radiocarbon Accelerator Unit date of 1702±25 ^{14}C yr BP, with a calibrated 2σ (95.4%) range of AD 255 to AD 401.

KEYWORDS

AMS, radiocarbon, bison, pathology, wound, archaeology



Density plots of sites with Beaver River Sandstone, a raw tool making material, recovered from within the Oil Sands bearing formation, part the research Honours student Dale Fisher conducted with Roger S. Smith scholarship support.



Back on the horse: Recent developments in archaeological and palaeontological research in Alberta

ARCHAEOLOGICAL SURVEY OF ALBERTA

OCCASIONAL PAPER NO. 36

Beaver River Sandstone: A silicified toolstone from northeast Alberta, Canada

Todd J. Kristensen[a*], Michael Turney[b], Robin Woywitka[a], Brian Tsang[c], Murray Gingras[d], Patrick Rennie[e], Elizabeth Robertson[f], Travis Jones[g], Jeff Speakman[g], and John W. Ives[h]

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ABSTRACT

This article is the third in the Alberta Lithic Reference Project series, the goal of which is to assist the identification of raw materials used for pre-contact stone tools in the province. Each article focuses on one raw material; the current article discusses a silicified orthoquartzite sedimentary rock that originates in northeast Alberta called Beaver River Sandstone (BRS). BRS appears in archaeological sites in northern and central Alberta and has been traced to a number of small outcrops or glacially-displaced surficial deposits and two major quarries north of Fort McMurray: the Beaver River Quarry (HgOv-29) and Quarry of the Ancestors (a complex of roughly 80 sites). Portable X-ray fluorescence (pXRF) indicates that BRS can be geochemically distinguished from macroscopically similar materials that outcrop in Montana and appear as artifacts in southern Alberta. We offer a description of BRS and comparable Montana materials, a photographic library for comparative purposes, a brief summary of BRS utilization in northeast Alberta, and pXRF data to facilitate the accurate identification of BRS in archaeological assemblages.

KEYWORDS

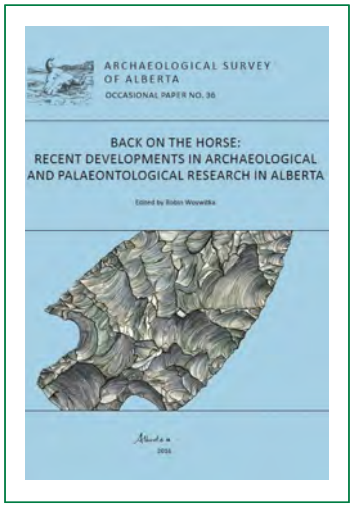
Beaver River Sandstone, silicified, Muskeg Valley Microquartzite, orthoquartzite, Tongue River Silicified Sediment, Alberta Lithic Reference Project, Quarry of the Ancestors, pXRF

1. The Alberta Lithic Reference Project

A lack of published references about pre-contact lithic materials (toolstones) in Alberta has led to inconsistent identifications. This article is one of a series of what will become chapters in a stand-alone Alberta toolstone

2. Introduction: Beaver River Sandstone

Early archaeological explorations of the oil sands region in northeast Alberta produced prehistoric lithic assemblages heavily dominated by a tan/gray fine-grained siliceous toolstone now known as Beaver River



Back on the horse: Recent developments in archaeological and palaeontological research in Alberta

ARCHAEOLOGICAL SURVEY OF ALBERTA

OCCASIONAL PAPER NO. 36

Tertiary Hills Clinker in Alberta: A partially fused vesicular toolstone from the Mackenzie Basin of Northwest Territories, Canada

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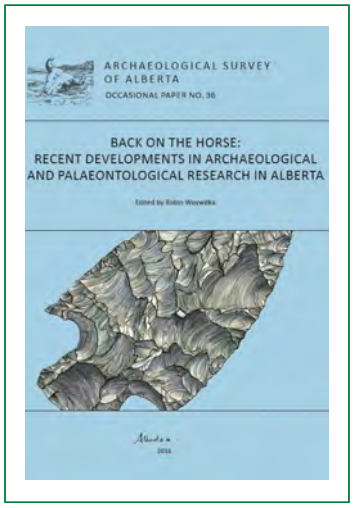
ABSTRACT

This article is the first in the Alberta Lithic Reference Project series, the goal of which is to assist the identification of raw materials used for pre-contact stone tools in the province. Each article focuses on one raw material; the current article discusses a partially fused, glassy, vesicular rock that originates in Northwest Territories called Tertiary Hills Clinker (THC). THC appears in archaeological sites in northern and central Alberta. A suite of techniques indicates that it can be geochemically sourced much like obsidian. The accurate identification of THC can reveal significant relationships between occupants of Alberta and the Mackenzie Basin to the north.

KEYWORDS

clinker, coal, Alberta Lithic Reference Project, porcellanite, pXRF, fused, glass



Back on the horse: Recent developments in archaeological and palaeontological research in Alberta

ARCHAEOLOGICAL SURVEY OF ALBERTA

OCCASIONAL PAPER NO. 36

Pre-contact jade in Alberta: The geochemistry, mineralogy, and archaeological significance of nephrite ground stone tools

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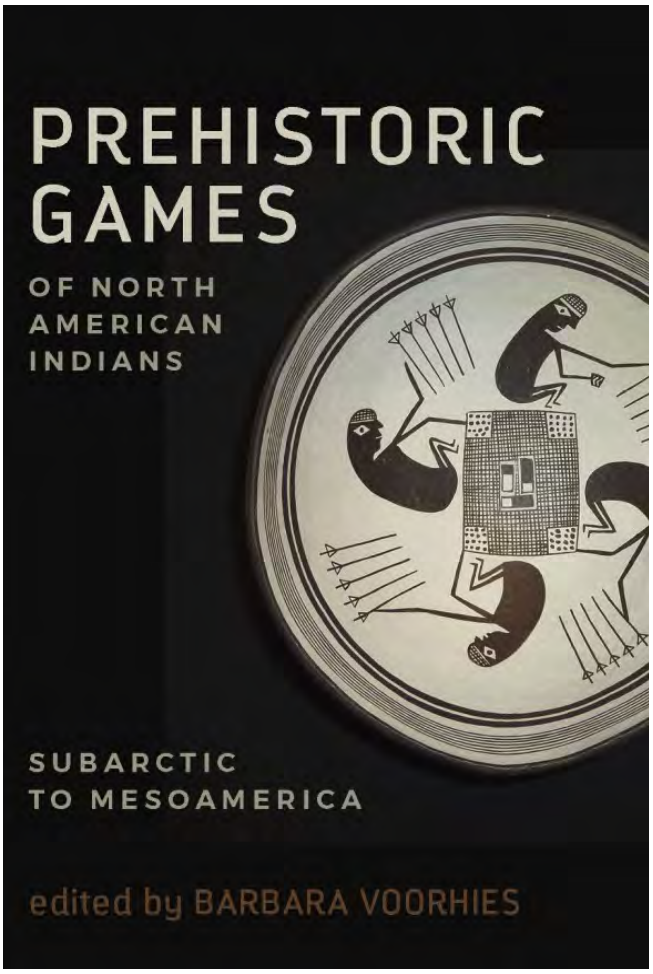
ABSTRACT

This article is the second in the Alberta Lithic Reference Project series, the goal of which is to assist the identificatio of raw materials used for pre-contact stone tools in the province. Each article focuses on one raw material; the curren article discusses a microcrystalline, actinolite-tremolite (amphibole)-rich rock called nephrite (jade) that originates i British Columbia, Washington, Yukon, and Alaska. Nephrite appears in archaeological sites in northern and centra Alberta. We provide results from a variety of non-destructive techniques (portable X-ray fluorescence, X-ray diffraction and near-infrared spectrometry) to determine the geochemistry and mineralogy of nephrite ground stone celts found in Alberta. Portable X-ray fluorescence offers a relatively simple, rapid, and reliable means to distinguish nephrite from other materials of similar appearance. Visible near-infrared spectrometry provides a rapid and reliable technique to source nephrite back to general production areas in British Columbia. The archaeological significance of nephrite celts in Alberta is briefly discussed. The accurate identification of nephrite can reveal significant cultural relationships that involved long distance exchange of raw materials between occupants of Alberta and British Columbia.

KEYWORDS

jade, nephrite, celts, Alberta Lithic Reference Project, serpentinite, pXRF, XRD, V-NIR, green, ground stone

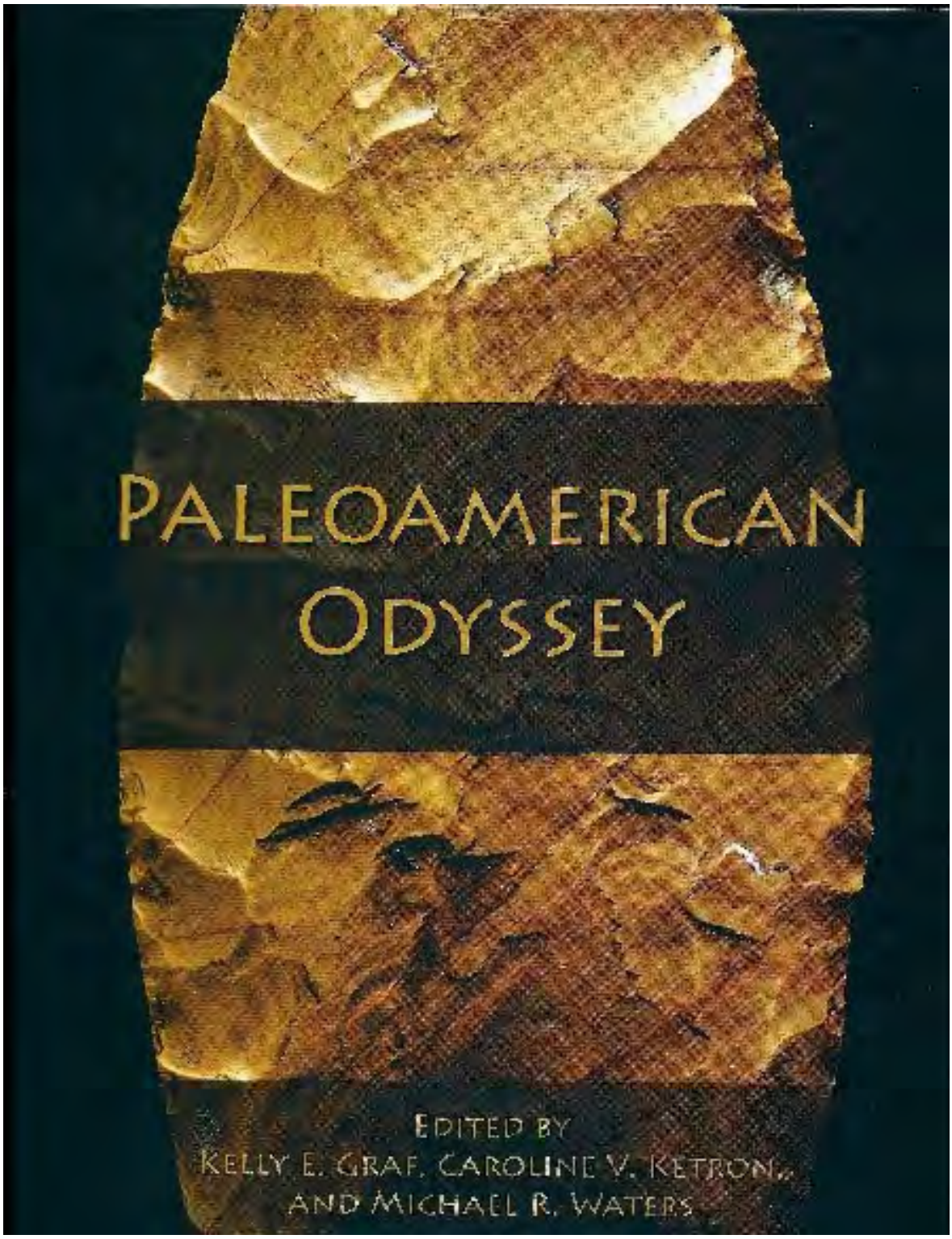


9 Mobility, Exchange, and the Fluency of Games

Promontory in a Broader Sociodemographic Setting

Gabriel M. Yanicki and John W. Ives

Since the excavation of Utah's Promontory Caves by Julian Steward in 1930 and 1931 (Figure 9.1), questions have existed about the relationship be- tween the caves' big-game hunting inhabitants— the forebears of the Promontory Phase peoples who lived along the front of the Wasatch Range until AD 1500—and the farming and foraging Fremont Complex peoples who resided in the Great Salt Lake area until about AD 1300 (Aikens 1966, 1967a, 1967b; Dean 1992; Forsyth 1986; Gunnerson 1956, 1960; Ives 2014; Janetski 1994; Janetski and Smith 2007; Johansson 2013; Madsen 1979b; Madsen and Simms 1998; Simms and Heath 1990; Simms et al. 1997; G. Smith 2004; Steward 1937). Our recent work on Promontory Point has elaborated Steward's (1937:86) observation that a number of traits of the Promontory people are unmistakably northern in character, suggesting they were a migratory population with roots in Dene (Athapaskan) communities of the Canadian Subarctic, well acquainted with a Plains bison hunting lifestyle, and in the process of adapting to the Desert West (Ives 2003, 2014). Steward was remarkably prescient in arguing that the Promontory and Fremont peoples were contemporaries. Bayesian modeling of dates from Promontory Cave 1 shows a tightly constrained period of occupation between AD



The fluted point found by Mr. Harold Foss in 1952 in Grand Centre, Alberta, used as the cover image.

JUNE 2018

SAROJ & PREM SINGHMAR CHAIR IN CLASSICAL INDIAN POLITY AND SOCIETY 500 BCE - 500 CE

Dr. Dominik Wujastyk, History & Classics Department, Faculty of Arts 2016-2018

UNIVERSITY OF ALBERTA

Dr. Dominik Wujastyk

Introduction

Dr. Dominik Wujastyk is the Saroj & Prem Singhmar Chair in Classical Indian Polity and Society. Over the last two years, both undergraduate and graduate teaching have developed well in this area, while—beyond the university—research has experienced steady growth, with the Singhmar Chair participating in numerous meetings and conferences. A lecture series was also presented on campus, featuring respected visiting international scholars, all sponsored guests of the Singhmar Chair.

Teaching

Fall 2016

- Introduction to Classical India
- Graduate research seminar – reading Sanskrit texts

Winter 2017

- Secrecy and Concealment in the Ancient World (co-convened with Prof. Margriet Haagsma)
- History of Indian Yoga and Meditation
- Graduate research seminar – reading Sanskrit texts
- Single lecture on the Sanskrit Language for Prof. Waclaw Osadnik's class on Translation

Fall 2017

- Introduction to Classical India
- Graduate research seminar – reading Sanskrit texts

Winter 2018

- History of Indian Medicine: Ayurveda. Joint graduate and undergraduate seminar
- Graduate research seminar – reading Sanskrit texts
- Introduction to Sanskrit (taught by Deepak Paramashivan)

Sanskrit

The introduction of Sanskrit language teaching deserves special mention as a new, exciting development. This was made possible through the Singhmar Chair Fund activated in 2017, providing a budget for activities associated with the aims of the Chair. Sanskrit teaching marks an important new step in strengthening the university in the area of Ancient and Classical India. Without knowledge of India's classical languages, serious and original work on Classical India cannot be undertaken, while the university cannot perpetually rely on students trained elsewhere. Mr. Deepak Paramashivan, a PhD student in the Ethnomusicology Department who has excellent Sanskrit skills, was available to teach the introductory course. A committee has been convened to develop Sanskrit teaching on a more formal basis; permanent faculty members in Religious Studies and in History & Classics will begin teaching these classes in September 2019, while a new second-level undergraduate course will be introduced.

Graduate Students

Mr. Madhusudana Rimal joined the department in 2016 and is progressing well in his PhD program. His final research project will be on the history of Ayurveda in Nepal.

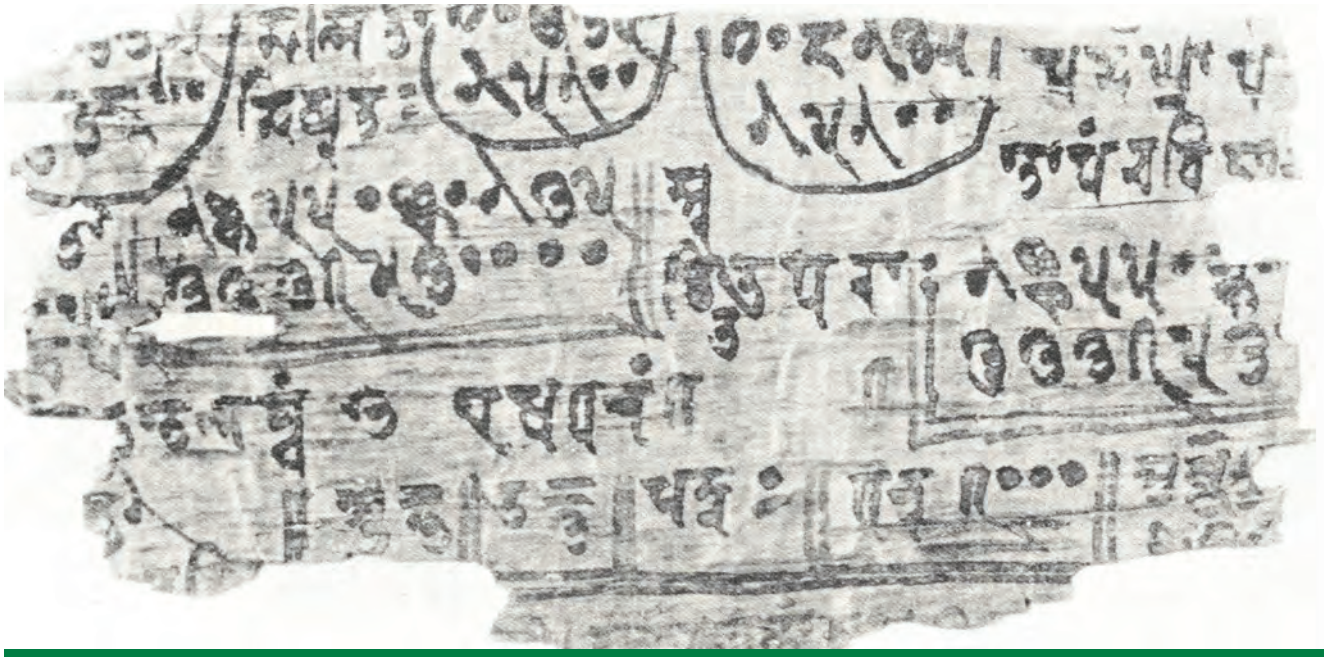
Mr. Deepro Chakraborty joined the History & Classics Department in 2017 and has had an exceptionally promising first year. His central interest is the history of ancient Indian liturgical phonetics (Sanskrit śikṣā), a topic on which he has already published an important book. During his first year, he completed the Sanskrit graduate seminar, courses in German language, and phonetics classes in the Department of Linguistics.

Late in 2017, the Graduate Admissions Committee admitted a third PhD student to study a Sanskrit-related topic in the History & Classics Department. Jane Allred will join the department in September 2018 to pursue research in Paninian grammar.

Research and Publications

Following planning meetings in April 2017, Wujastyk successfully applied for a grant under the Canada 150 program with Mrs. Hansa Thaleshvar, Director of the Hindu Society of Alberta. Their project is documenting the fifty-year history of the Hindu immigrant population in Alberta and the Hindu Society itself. Graduate student Deepro Chakraborty is writing the historical report under Wujastyk's direction. In addition to this published historical report, project deliverables include a website and possibly a documentary film.

Wujastyk worked at the Institute for South Asian, Tibetan and Buddhist



Bakhshali manuscript

Studies at the University of Vienna, a location with excellent library facilities and a thriving group of indological scholars, in July 2017.

Wujastyk's book, *Metarules of Paninian Grammar,* was published at the Indian publisher, Motilal Banarsidass in Delhi, in December 2017.

His chapter "Models of Disease in Ayurvedic Medicine" was published in the *Routledge History of Disease,* edited by Mark Jackson. This paper described different theories about the causes of illness that were held by professional physicians in ancient India.

Wujastyk spent much time this year writing a study of the medieval Sanskrit yoga treatises associated with the legendary sage Yājñavalkya. He clarified the content of two works on yoga associated with this sage that are commonly confused. He traced their early history through handwritten manuscripts, and also edited and translated passages from these works that describe yoga postures. The resulting article was published in 2017 as "The Yoga Texts Attributed to Yājñavlakya and Their Remarks on Posture" in the journal *Asian Literature and Translation.*

In an effort to reach a more local audience in Alberta, Wujastyk authored an accessible article about recent discoveries in the history of yoga entitled "New Light on Patanjali" for *Yoga Bridge*, the newsletter of the Yoga Association of Alberta. The article was published in the Winter 2017 issue of the newsletter and was met with unexpected enthusiasm. In addition to publication in the newsletter, it has been viewed nearly 700 times on Wujastyk's academic website and has been translated into Russian for a readership in Ukraine.

Wujastyk also published an article entitled "From Balkh to Baghdad: Indian Science and the Birth of the Islamic Golden Age in the Eighth Century" in the *Indian Journal of History of Science,* published in Delhi. This paper, which began as a conference presentation at Ambedkar University a year earlier, explores the transmission of scientific thought from India to Central Asia and the medieval Middle East. Once again, a Russian translation of the paper was published in Ukraine.

Towards the end of 2017, the Bodleian Library in Oxford and Marcus du Sautoy, professor of the Public Understanding of Science, released a YouTube video and a press release claiming that carbon dating techniques had made it possible to revise the date of the Bakhshali Manuscript by several hundred years. This claim is important because the Bakhshali Manuscript, one of the earliest known Sanskrit manuscripts, contains the written symbol for zero and is thus important for the history of mathematics. Oxford's unusual method of presenting research findings, ambiguous data and implausible arguments all raised concerns in the professional world of science historians. With a distinguished team of four other international specialists, Wujastyk

Dagmar Wujastyk, Dominik Wujastyk and Prof. Stefan Braums (Munich), SARIT Conference, University of Vienna, May 2017.

co-authored a response to the Oxford announcements and refuted their main claims. The resulting article was written, refereed and published in record time in the journal *History of Science in South Asia,* published by the University of Alberta. Following an international debate that lasted for several weeks, it now seems generally accepted that Oxford University was excessively hasty and erred by rushing to journalistic channels without first subjecting their work to peer scrutiny.

The journal *History of Science in South Asia* (hssa-journal.org), launched in 2013 and brought to the University of Alberta in 2015, has enjoyed a very strong two years. Developing and publishing this journal has been a major part of Wujastyk's focus. In 2017, the journal published papers on time in ancient India; Indian astrology; and the history of zero in ancient India (co-authored by Wujastyk). A special issue in 2017, titled "Transmutations: Rejuvenation, Longevity, and Immortality Practices in South and Inner Asia," was guest edited by Prof. Dagmar Wujastyk. It presented nine major papers on topics including yoga, alchemy, Ayurveda and Tibetan medicine. The 2018 issue has already published two major articles, one on the historical relationship between yoga and Ayurveda, and a second on the notion of formal proof in medieval Indian mathematics. Additional papers are in press.

The aim of this journal is to publish high quality international research on the sciences in Ancient and Medieval India. It is attracting both a wider circle of readers and outstanding academic submissions.

Conferences and Workshops

In summer 2016, Wujastyk chaired a conference panel at the Three Societies Meeting, a major international meeting on the history of science held this year at the University of Alberta.

Also in summer 2016, Wujastyk presented a paper at the Austrian Academy of Sciences in Vienna entitled "SARIT – A Rationale" in which he explored the purposes and progress of a digital text library project for Indian literature that he founded several years ago. This library has become a major academic resource (http://sarit.indology.info).

Another paper on Indology was presented in November 2016 at the University of Toronto, providing the opportunity to meet faculty and graduate students at the U of T.

Wujastyk attended the annual conference of the American Oriental Society in Los Angeles in March 2017, a major annual meeting for Sanskrit scholars. His paper titled "Is effort required to practice Yoga postures?" examined the changing views on this question from Patanjali to Vacaspati Misra and to more recent times.

In the spring of 2017, Wujastyk returned to Vienna and again spoke about the SARIT project with a paper titled "What Do Users

"This is an exciting time for yoga studies, because in the last ten years a number of crucial new discoveries have been made about yoga's history. These have rewritten our understanding of yoga's evolution, both as a philosophy and as a physical practice. The first of these new insights is about the identity of the oldest explanation of yoga philosophy."

~ Dr. Dominik Wujastyk
"New Light on Patañjali," *Yoga Bridge* Winter 2017

Want From SARIT in Future?" This paper presented the results of a user survey, devised to explore the different uses and requirements of end-users of the SARIT Sanskrit digital library.

Wujastyk gave a lecture in Kochi, Kerala, while remaining in Edmonton in June 2017. This was achieved through the technical brilliance of his Indian colleagues at Chinmaya Vishavidyapeeth in Kochi through online video conferencing that allowed two-way sight and interaction with the audience after the presentation. His talk, "Revolutions in Indology," presented classical Indian studies as an ever-changing field of innovation and change.

In August 2017, Wujastyk attended a European Research Council workshop at the University of Vienna titled "Medicine and Yoga in South and Inner Asia." Later that month, he attended the International Congress on Traditional Asian Medicine at the University of Kiel in Germany, speaking on "What is '*vimāna*' in the Compendium of Caraka?" In this lecture, he proposed a new interpretation for one of the key technical terms in classical Ayurveda.

In October 2017, Wujastyk spoke at an Edmonton conference for the Integrative Health Institute, University of Alberta on "The Impact of History on Traditional Asian Medicine."

Wujastyk delivered two addresses in London during a short visit in February 2018. He conducted a seminar at the School of Oriental and African Studies, where he was honoured to be the inaugural speaker in a new series of lectures named after the late professor of Sanskrit, Prof. John Brough. The second London talk was given at the Wellcome Library, where he introduced an invited audience to a selection of Sanskrit manuscript treasures in the library's collection.

In March 2018, Wujastyk chaired a session at "Space, Nature, and Boundaries: Humanity in the World," the U of A's departmental graduates' conference.

Other U of A scholars working on Ancient India include Prof. Neil Dalal, Dept. of Philosophy, who returned from sabbatical leave in fall 2017 and recommenced teaching courses in Indian Philosophy and Religion. He is working on a book manuscript titled Contemplative Practice in Advaita Vedanta and articles on "Sudden and Gradual Enlightenment in Advaita Vedanta" and "Imagination and Meditation in the Early Upanishads."

Prof. Dagmar Wujastyk was still on secondment to the University of Vienna during this reporting period. Her European Research Council Horizon 2020 project, "Entangled Histories of Yoga, Ayurveda and Alchemy in South Asia," (ayuryog.org) continues to produce a stream of publications, workshops and events. Her Vienna secondment will finish in June 2018, at which time she will take up her position in the Department of History & Classics, teaching courses in Indian

Buddhism, History of Tantra, and History of Indian Alchemy.

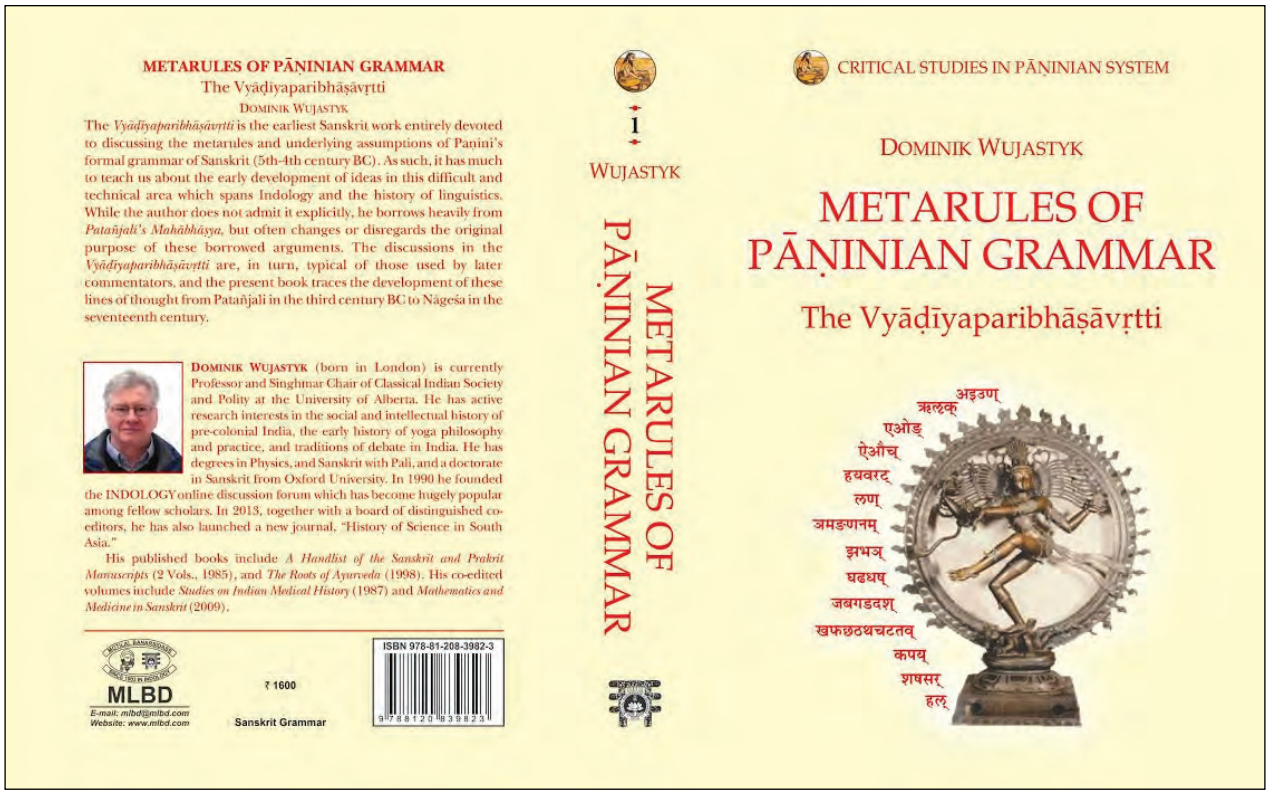
The Singhmar Guest Speaker Program

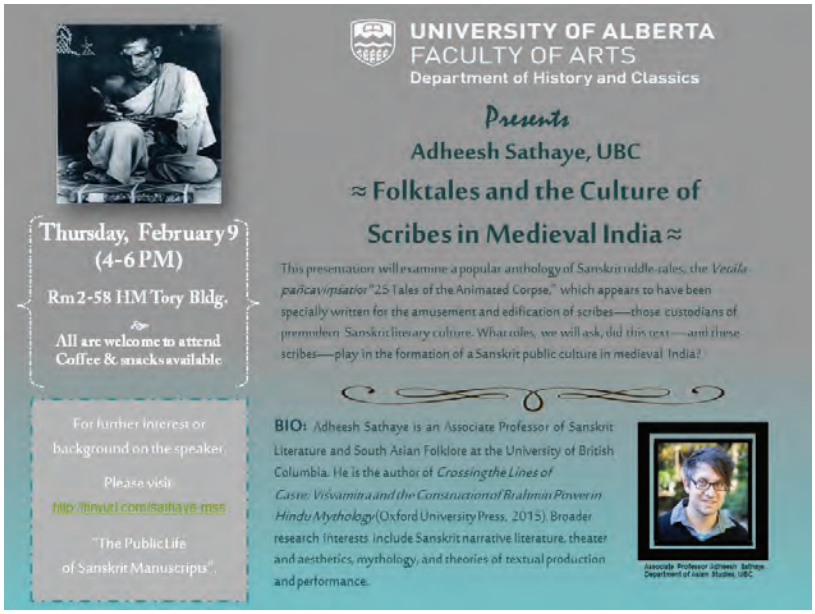
The visiting speaker program has now been formally titled "The Singhmar Guest Speaker Program." In February 2017, Prof. Adheesh Sathaye, Associate Professor of Sanskrit and South Asian Folklore at UBC, presented a seminar on "Folktales and the Culture of Scribes in Medieval India." Sathaye described how the literary traditions of the Brahmanical communities of premodern India have been preserved through the tireless labours of generations of scribes, and how modern digital methods can be applied to understanding the transmission of literature down through the ages. As an example of these processes, Sathaye used one of the tales of the famous corpus, *Twenty-five Tales of the Zombie* (Sanskrit *Vetālapañcavimśati*).

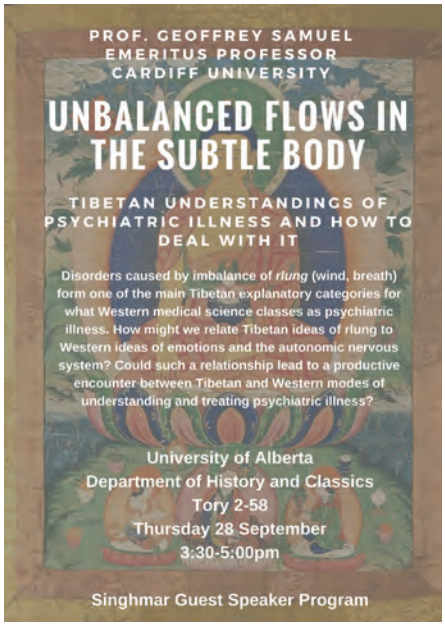
In September 2017, the Singhmar Chair Fund made it possible to invite Prof. Emeritus Geoffrey Samuel to speak at the university and to hold seminars for the department's graduate students. Samuel is internationally known for his many books and articles on the history of yoga, tantra and Buddhism, including Indian and Tibetan traditions. His address, "Tibetan Understandings of Psychiatric Illness," connected Tibetan theories with those of Indian practices of yoga and meditation and with Western ideas of emotions and the autonomic nervous system. He addressed undergraduates on the topic of goddess worship, and discussed the transmission of Indian scholarship from the great Buddhist monasteries of north India to Tibet during medieval times with graduate students.

In February 2018, the Singhmar Chair Fund sponsored a visit from Prof. Alessandro Graheli of the University of Vienna, a specialist in Sanskrit linguistics and the philosophy of language. He lectured on Indian theories of sentence signification and had four seminars with graduate students, during which the linguistic ideas of Jayanta Bhaṭṭa—a ninth-century philosopher from Kashmir—were read and discussed.

During the summer of 2018, Prof. Wujastyk is working on three projects to build Indian studies at the University of Alberta. First, he is working with faculty and staff to create a Centre for South Asian Studies at the university. Second, he is creating a Certificate in South Asian Studies that will offer undergraduates a specialist pathway that will form part of their graduation transcript, helping them pursue graduate studies in classical Indian subjects. Finally, he is working with the Graduate Chair in the History & Classics Department to create a PhD program in Ancient Societies and Cultures that will provide a natural doctoral pathway for students whose primary interest is Ancient India and South Asia.







Pictured above:

The Cover of Dr. Wujastyk's book and two posters from the Singmar Guest Speaker program.

For further inquiries, please contact:

Jane Potentier
Assistant Dean, Advancement
Faculty of Arts, University of Alberta
780-492-8060 | jane.potentier@ualberta.ca

UNIVERSITY OF ALBERTA

TRUE and LOYAL

2018 IMPACT REPORT

EST 1854

UNIVERSITY OF EVANSVILLE®

A NOTE FROM THE PRESIDENT

Dear Friends,

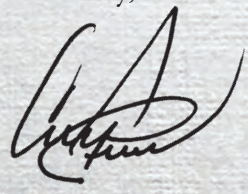
Greetings! It is a pleasure to join such a wonderful place as the University of Evansville as the 24th president, a place where lives are transformed and where we embrace our responsibility of serving our community. As we look forward to a very bright future, I want to personally thank you for your continued dedication and support to UE. Exciting things are on the horizon for our university, and many of them are because of the support of generous and loyal donors that make our institution a priority.

In this publication, you will see the impact that your contributions have had on the University of Evansville – our students, faculty, administrators, staff, and a beautiful campus. As I learn more and more about our campus, I am impressed with the quality of academic programs, capital improvements, faculty and staff commitment, alumni engagement, and student success all around the University. I know this would not be the case without your investment in student scholarships, major capital renovations, and academic and athletic programs that make UE such an exciting place to be today and a great choice for prospective students.

Universities are our future because our students become the next generation of innovative leaders who will face challenges and embrace opportunities that we cannot yet envision. We can make a difference – and we will because together, We Are the University of Evansville.

I look forward to traveling near and far to meet our many friends, alumni, and supporters who mean so much to us. Thank you for being a part of the University of Evansville story. The next chapter is ours to create together.

Sincerely,



Christopher M. Pietruszkiewicz
President

UE BY THE NUMBERS

630
Number of students who receive donor-funded scholarships

Over
$2.1 million
awarded in donor-funded scholarships

107
Number of non-scholarship endowed funds

455
Number of endowed scholarships

221
Members of the John Collins Moore Society

7811
Total number of donors in 2017-18
from
43
States

42
Members of the Clifford Circle

1188
Number of members of the President's Club

3,647
Number of alumni donors

THE YEAR IN REVIEW

The 2017-18 academic year was an exciting time at the University of Evansville. Several dedicated University supporters continue to help make these and other similar projects possible. Thank you to our generous donors who step up to make UE a great place to be!

JONES HALL

In August 2017, UE renamed North Hall to Jones Hall for UE trustee Paul '71 and Patricia Jones. Paul and Pat met as UE students, and Paul first saw Pat on the corner of Weinbach and Walnut, where Jones Hall is located. The Joneses have contributed transformational gifts to the Bower-Suhrheinrich Library renovation, the Hyde Hall renovation, and the College of Engineering and Computer Science.

WEIGHT ROOM

Aces student-athletes are enjoying much needed new equipment in the recently renovated Carson Center weight room. New equipment for Aces student-athletes was made possible by loyal Purple Aces Club supporters.

ACE CARE

Run by the University of Evansville Doctor of Physical Therapy (DPT) students, Ace CARE is pro-bono physical therapy clinic for uninsured, underinsured, or homeless patients who need care. Ace CARE services are provided at no cost to the patient. Students in the program focus on pain management, individuals with neurological conditions, and children with special needs.

LOGISTICS AND SUPPLY CHAIN MANAGEMENT

The Center for Logistics and Supply Chain Management, housed under the Schroeder Family School of Business Administration, provides students studying supply chain management with experiential learning opportunities over and above their core curriculum, such as speakers, tours, conferences, competitions, and visits to top logistics and supply chain management programs.

STUDENT EMERGENCY FUND

This year, the Student Emergency Fund was established to help meet the needs of undergraduate students who encounter emergency situations or one-time, unusual, or unforeseen expenses during their academic careers at UE.

LUTZ LAB

The John David Lutz Theatre Lab will provide the Department of Theatre a new space for class work, rehearsals, and master classes by guest artists. The space will be equipped with flexible seating, a stage, soundboard, and full lighting system, and will marry together Shanklin Theatre and the May Studio theatre, thus enhancing the creative spirit critical to a liberal arts education.

VIDEO PRODUCTION LAB

With the renovation of Hyde Hall will come a new space for communication students to practice their skills in multimedia production. The lab will be complete with a production studio; quality cameras; professional lighting; a control panel for sound, lighting, and cameras; and equipment storage.

AARSTAD PRIZE

In Fall 2017, the Aarstad Scholar Prize was established to honor Arthur B. Aarstad, the legendary political science professor who served at UE from 1958 until his retirement in 1995. The recipient of the prize will be selected annually by the Department of Law, Politics, and Society, and distinguished by merit and work in the study of political science.

PEP AND VIM DAY OF GIVING RECAP

Many thanks to our **TRUE** and **LOYAL** donors on UE's Pep and Vim Annual Day of Giving. The outcome was truly amazing.

1,432 Total Number of Gifts

Each gift represents 100 gifts.

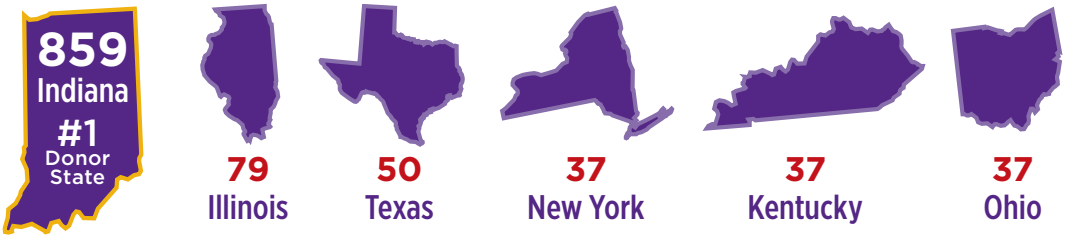
DONOR GROUPS

73% Alumni

17% Friends

10% Parents

TOP 5 DONOR STATES AFTER INDIANA



79 Illinois

50 Texas

37 New York

37 Kentucky

37 Ohio

$310,882
Total Dollars Raised

Class decade with highest participants (254 donors)

Percentage of Employee Donors on Pep&Vim

MARK YOUR CALENDARS FOR THE NEXT DAY OF GIVING ON

#UEPepandVim

APRIL 12, 2019
PEP and VIM
UE'S ANNUAL DAY OF GIVING

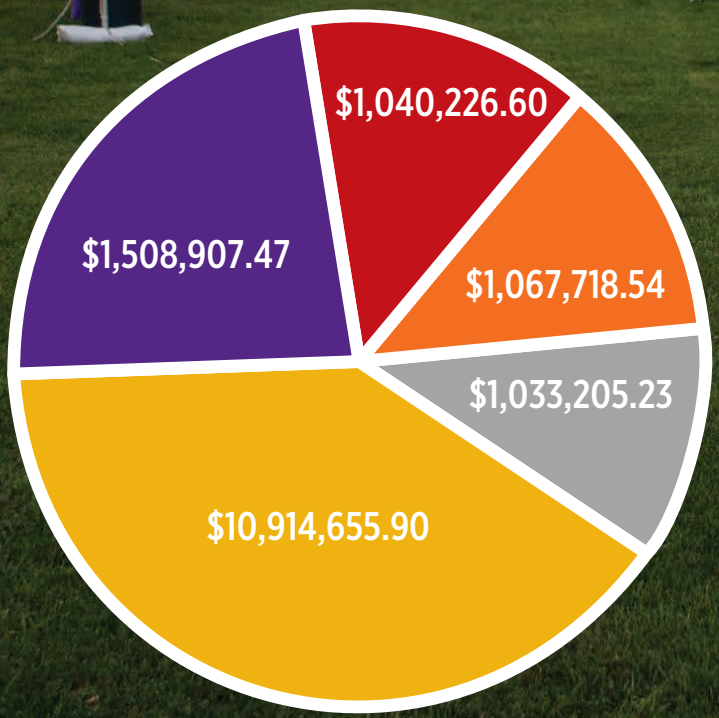
#TrueandLoyal

www.evansville.edu/give

THANK YOU FOR YOUR GIFT!

2017-18 GIFTS

University of Evansville is sustained by True and Loyal alumni, friends, corporations, foundations, and the UE community. Thank you to all of our generous supporters who helped us bring in over $15 million in cash gifts in the 2017-2018 academic year.



Grand Total: $15,564,713.74

- UNRESTRICTED ANNUAL GIFTS
- ATHLETICS GIFTS
- ENDOWMENTS
- CAPITAL PROJECT GIFTS
- RESTRICTED ANNUAL GIFTS

OUR STUDENT

Aaron Gonner ’18

“Your contributions have given me the financial flexibility to take summer stock jobs in West Virginia and Montana over the last three summers. UE is such a special place and I am blessed to be able to attend, in part because of you.”

Aaron was the 2017-18 recipient of the John and Linda Conaway Sponsor-a-Student Scholarship. He recently graduated with a Bachelor of Fine Arts in theatre performance and will be soon pursuing his Master of Fine Arts in Acting at The Juilliard School in New York City.

Elizabeth Daugherty ’18

“Thanks to gifts from proud and generous UE supporters, I’ve been able to conduct biomedical research at the University of Alabama at Birmingham the past two summers, and was even blessed with the opportunity to attend a conference at the National Institutes of Health in Washington, D.C. Furthermore, I have had amazing mentors through the UE Alumni Mentoring program. I hope to one day help further the education of future UE students and give them the same opportunities you have given me.”

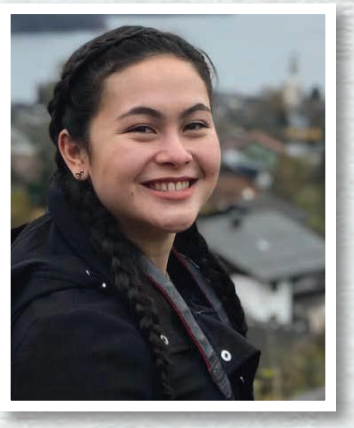
Elizabeth is a 2018 graduate of University of Evansville with a Bachelor of Science in biology. She is the 2017-18 recipient of the Amy Brody Sponsor-a-Student Scholarship.

Jacob Jewell ’17

“At UE, I worked with the Student Government Association on projects that benefit the University and also represented the Schroeder School of Business in its LEAD Forward Program. Donations like yours helped turn my dreams into reality. I have relied on financial aid, grants, and student loans to help finance my education. Receiving this donor-supported scholarship lifted a burden off of my shoulders.”

Jacob is a 2017 graduate of University of Evansville with a Bachelor of Science in accounting. He is the 2017 recipient of the Leland M. and Alice N. Feigel Memorial Scholarship.

S SAY THANKS

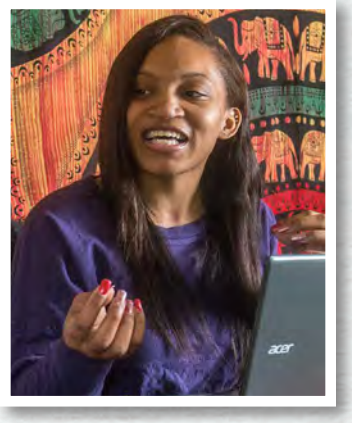


Kianna Wong ’19

“My semester at Harlaxton was unquestionably the best time of my life. I have grown and changed more than I ever thought possible, have visited more countries and interacted with more varied nationalities of people than I could ever have had reason to expect. I could not possibly have come to UE to study, or had these experiences, or grown this much, without your support.”

Kianna is one of the 2017-18 beneficiaries of the Jeanne Schroeder Memorial Harlaxton Scholarship Fund. She is a senior exercise science major from Germantown, Tennessee.

Starr Franklin ’20



“Your support has helped me significantly in my education and my aspirations to be successful in life. My goals in life are to become a lawyer and help change the criminal justice system and lives for African Americans. If not for your support, I would not have been able to realize that if I can do what I strive to achieve, then nothing can stand in my way when it comes to graduating college and starting my career in the future.”

Starr is a junior from Indianapolis, Indiana, majoring in criminal justice and sociology. She is one of the 2017-18 recipients of the Zerah Priestly Carter University of Evansville African American Scholarship.

Luke Steffe ’20

“I truly appreciate your support and dedication to the University of Evansville. Without your kindness, I would not be able to take advantage of all the opportunities UE has to offer. Because of scholarships and generous gifts from donors, I have been able to study abroad at Harlaxton, complete summer research, and gain a well-rounded education from professors who support my future. Thank you so much for your contributions toward my education at UE.”

Luke is a junior from Ferdinand, Indiana, majoring in biochemistry. He is one of the 2017-18 recipients of the Arthur J. and Edna S. Shane Memorial Scholarship.

And we'll back you with a rah rah rah!

GIVE AND GE

Purple Aces Club

Supports over 200 student athletes on UE's 17 NCAA intercollegiate athletic teams.

Friends of Music

Supports purchase of new instruments and faculty development, and raises funds for student assistantships.

John Collins Moore Society

Over 200 loyal supporters who have included UE in their estate plans.

Friends of Art

Members include art patrons, alumni, UE representatives and community members.

ET INVOLVED

University of Evansville Theatre
Educating future professionals.

Theatre Society

Raises over $100,000 annually for student assistantships, guest artists, trips to see professional theatre, and an adopt-a-student program.

Neu Chapel Society

Neu Chapel Society

Supports religious worship, study, and fellowship on UE's campus.

UNIVERSITY OF EVANSVILLE
PRESIDENT'S CLUB

President's Club

Members contribute $1,000 or more annually to any fund or area of UE.

CLIFFORD CIRCLE
UNIVERSITY OF EVANSVILLE

Clifford Circle

48 individuals, corporations, or foundations who have given over $1 millions to UE.

UNIVERSITY OF EXETER

To all our 2017/18 supporters

THANK YOU

Celebrating philanthropy and volunteering at the University of Exeter

MAKING THE EXCEPTIONAL HAPPEN

The University of Exeter Campaign


Alumni Gala Dinner, Drapers Hall, London, 10 May 2018


Alumnae Reception, University's Women's Club, London, 11 April 2018

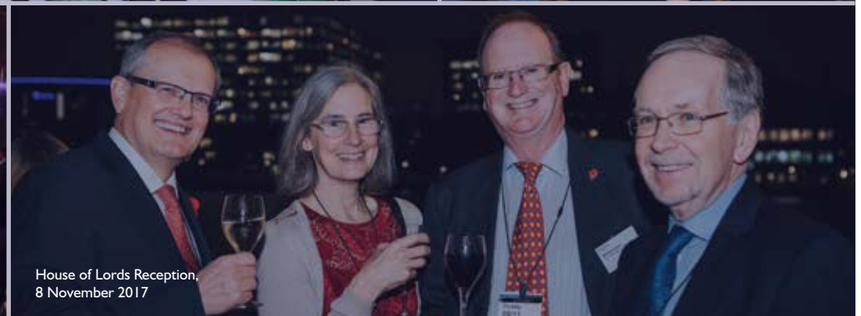

Alumni Golf Day, St George's Hill Golf Club, 18 August 2017


Rugby Varsity, Sandy Park, Exeter, 14 February 2018


Thank you Reception, Innholders' Hall, London, 26 September 2017

House of Lords Reception, 8 November 2017


Thank you Reception, Innholders' Hall, London, 26 September 2017


House of Lords Reception, 8 November 2017

A message from Professor Janice Kay

2018 was a truly exceptional year for Exeter, I would like to extend my thanks to all of you for your support of Exeter.

Thanks to your commitment and generosity we have made great strides in our '**Making the Exceptional Happen**' Campaign.

In February we passed our target for volunteering hours two and a half years early – a staggering 60,000 hours given by you to support our students, our staff and our alumni. In the last year alone, nearly 1,000 of you donated more than 11,000 hours of your time to help us do even more.

In the spring we were honoured to receive the largest ever single donation to the University of Exeter, £10 million from the Dennis and Mireille Gillings Foundation to support dementia research, cancer diagnosis and new Professorships.

Over 3,200 of you chose to support the University financially, resulting in the most successful year for philanthropy in the University's history with more than £15 million in contributions.

The impact of your support is felt across the University. It helps us to research solutions to global problems such as climate change and disease, to help support talented students from all backgrounds to attend Exeter, and to offer the best possible student experience and career support.

Of course, we never rest on our laurels and are working on key priority areas that will help us achieve even more. You can learn more about each of these themes via our Campaign website: exeter.ac.uk/exceptional

Your support is vital for Exeter's continuing success, and we appreciate every single one of you and what you bring to our community. I hope that you enjoy reading just a few of the stories made possible by your generosity.

Janice Kay

Professor Janice Kay, CBE
Provost

Largest single gift for the University of Exeter


Mireille and Dennis Gillings

A £10 million donation from the Dennis and Mireille Gillings Foundation will fund a brand new imaging centre at the University to transform dementia research and diagnosis.

The Mireille Gillings Neuroimaging Centre, will be located at the Royal Devon and Exeter NHS Foundation Trust (RD&E) site and will accelerate clinical trials for potential dementia treatments over the next five years.

Fifty million people around the world suffer from dementia but currently there are less than thirty phase 2 or phase 3 trials for disease-modifying therapies for Alzheimer's worldwide. The new Centre should double the number of dementia drugs in development through the innovative use of brain-scanning technology and, has the potential to save thousands of lives.

The gift will also be used to help improve early stage cancer diagnosis by GPs and to fund two new professorial fellowships that will assist the next generation of Exeter scientists to excel in medicine, leadership and business.

> "As a neuroscientist I understand that the application of new scanning technology and techniques has the potential to transform neurological research. This new, state-of-the-art imaging centre will undoubtedly play a pivotal role in the molecular understanding, diagnosis, and treatment of Alzheimer's and other neurological disease."

Dr Mireille Gillings (Hon LLD, 2017)

Thank you to our exceptional volunteers

An alumnus/a has been volunteering every hour every day every year since the start of the Campaign

1,875 working days of strategic advice

Supported us from 80 countries across the world

Thank you to each and every one of our wonderful volunteers who generously offered their time, skills and experience since the start of our Making the Exceptional Happen Campaign.

Thanks to your generosity, we reached our volunteering target an amazing two and half years ahead of schedule.

The University has benefited from 60,000 alumni volunteering hours over the last six and half years. Gifts of time come in many shapes and sizes, but they all make a massive difference at Exeter.

> 60,000 volunteering hours in six and a half years is an incredible gift. It equates to one of our alumni volunteering for the University every hour of every day, every year since the start of the Campaign.
>
> Exeter is a dynamic and innovative University that strives to give future generations the ability to change the world around us. We are working hard to make the exceptional happen but we could not achieve what we do without you – thank you.

Professor Sir Steve Smith,
Vice-Chancellor and Chief Executive, University of Exeter

60,000 VOLUNTEERING HOURS

THANK YOU!

Winners chosen for the inaugural Alumni Volunteer Awards

In celebration of all of our amazing volunteers, and to say thank you to those exceptional individuals who do so much to support us all, we launched our inaugural 'University of Exeter Alumni Volunteer Awards'.

We named them after a pair of exceptional alumni volunteers, whose commitment of time, skills, advice, energy and enthusiasm have had a huge impact on our institution.

Debbie Hill, Drama, 2006

The Debbie Hill Award for exceptional support of students – named in honour of Debbie Hill (Drama, 2006), Head of Volunteering at Marie Curie, in recognition of her invaluable advice and guidance on the development of our alumni volunteering programme.

This was awarded to Duncan Goldsworthy (Chemistry, 1977) for his long-standing and committed support of a wide range of student employability activities. He said: "I am absolutely delighted to have received the Debbie Hill award and so pleased to think that my efforts have been appreciated. Sometimes it is difficult to know whether you are doing the right thing and I am very conscious about the 35-40-something year age gap between myself and my mentees. However, I am so glad that I am able to continue to be of use to the students at Exeter University and I will continue to provide as much support as I possibly can."

Nicholas Bull, Chemistry, 1973

The Nicholas Bull Award for exceptional support of the alumni community – named after Nicholas Bull (Chemistry, 1973) who has been volunteering his time and expertise for the University of Exeter for almost two decades and has worked tirelessly to engage alumni in support of the University.

This was awarded to Wenjie Li (Msc Accounting and Finance, 2012) for his pioneering development of the Exeter China Alumni Association. He said: "It is my privilege and honour to receive the Nicholas Bull Award. I appreciate the encouragement and guidance from University of Exeter and all you have done to supporting alumni development in China."

Steve Edge (centre) and his daughters, Charlotte (far left) and Katherine (far right)

Professor Sir Steve Smith, Vice-Chancellor and Steve Edge

Recognising alumni support

The Steve Edge Seminar Room recognition plaque

A seminar room has been named after alumnus Steve Edge (Law, 1972) honouring his commitment and generosity to Exeter.

Joined by his daughters and granddaughter, Steve unveiled a plaque in front of family and friends at a ceremony that recognised his loyal support over many years. Steve has volunteered his time, and provided financial support, to the Department of Law, the Business School and the Medical School.

After graduating from Exeter in 1972, Steve joined Slaughter and May in 1973 becoming a Partner of the firm in 1982 and subsequently Head of the Tax Department. Considered a leader in international corporate tax affairs, Steve has spoken and advised extensively in Europe and the US on international tax issues.

A member of the Alumni Network Group since its inception in 2006, he became Chair in 2013. Steve's leadership was instrumental in the University reaching our volunteering target two and a half years ahead of schedule.

He has also held positions on the Making the Exceptional Happen Campaign Board, the Law Advisory Board, and advised the Business School's Tax Administration Research Centre. Steve was awarded an Honorary Degree in 2012 in recognition of his extraordinary generosity in supporting the Law School by leading on their alumni relations activity.

> "Steve Edge has been a committed and loyal supporter of the University of Exeter for many years. I'm delighted to pay tribute to Steve and to recognise the impact that he has had on the University of Exeter."
>
> *Professor Sir Steve Smith,*
> *Vice-Chancellor and Chief Executive*

Helping GPs diagnose dementia more accurately

Thanks to funding from the Halpin Trust, research at the University will improve early diagnosis of dementia and reduce pressure on health services.

Timely diagnosis is key to ensuring people with dementia get the right treatment and support. Although more than 800,000 people in the UK are diagnosed with dementia, many more are never diagnosed, or are diagnosed too late in the progression of the condition for any action to be effective.

Dr David Llewellyn and his team at Exeter are working with Devon Partnership NHS Trust to improve diagnosis. They have developed a clinical decision support system called DECODE to help identify which patients are most likely to benefit from a full dementia assessment. It will help GPs with the difficult task of assessing which patients should go on to memory clinics within the short consultations available to them.

This system could potentially increase the number of people with dementia who could be diagnosed within a two-year period by over 20%. At the same time, a large proportion of cognitively healthy people could be picked up by the DECODE triage system, and these full dementia assessments could be reduced by up to 400%.

> “We are incredibly grateful to the Halpin Trust for their continued support which has made all the difference. It’s been an exciting journey so far, and initial feedback about DECODE from clinicians and patients has been very positive.”

Dr David Llewellyn

The Alumni Annual Fund

EXETER Forever ALUMNI ANNUAL FUND

The Exeter experience goes beyond studying and our Alumni Annual Fund supports the extra-curricular activities that make our University such a fantastic place to be.

Funded by thousands of alumni and supporters of the University, donations are used to support sports clubs, societies, music groups, theatre productions, student conferences and community outreach projects, to name just a few.

TOTAL OF **£127,706** WAS DISBURSED

TOTAL OF **£129,660** CASH RECEIVED IN 2017/18

84 PROJECTS SUPPORTED ACROSS THE UNIVERSITY

New Access for St Luke's Swimming Pool

Alumni Annual Fund donations have funded a Pool Hoist for disabled swimmers to access the pool on our St Luke's Campus.

This will not only improve participation in sport for students with a disability, but will also support elderly and disabled members of the local community to take part in swimming.

St Luke's swimming pool.

> "Miranda's talk inspired me to make bold decisions, be brave and keep going. She also really encouraged me to help the younger generation embrace and enjoy nature and the wild."
>
> *Tirion Dowsett, 3rd Year Bioscience student*

> "We are very grateful to the Alumni Annual Fund and its donors for giving us the opportunity to host such a successful event."
>
> *Sophie Corrigan, President, WildDocSoc*

Miranda Krestovnikhoff and members of the WildDoc Society

WildDocSoc

The WildDocSoc, based at the Penryn campus, provides an opportunity for students to interact with experts in the wildlife filmmaking industry, from producers and presenters at the BBC Natural History Unit to independent filmmakers. Guest speakers give talks to the students about their experiences travelling around the world to capture some of nature's most unique and special moments, while also providing workshops and small group discussion sessions.

Having this exposure to successful individuals in the industry is invaluable for students from a range of courses, from bioscience and geography to filmmaking and photography as it gives them an insight into the various routes to get involved in wildlife filmmaking, and provides important networking opportunities.

Thanks to the Alumni Annual Fund, WildDocSoc were able to secure renowned television presenter Miranda Krestovnikhoff to meet students. Miranda shared her adventures in getting into the industry as well as tips and advice. She answered many questions from our students and informed them about her role as president of the RSPB.

Engineers Without Borders

Student society Engineers Without Borders are part of a national charity aimed at removing barriers to development through engineering. Thanks to funding from the Alumni Annual Fund, they were able to run their Sustainability Project.

The first part, the V3 Power Project, was a workshop where team members built a wind turbine from scratch and donated it to those in need after its completion. It provided a great opportunity for students to get a hands-on experience of the renewable energy industry while also working for a good cause.

The second part, the Bamboo Workshop, taught students how to build bicycles and furniture using bamboo. They have then connected with refugee camps abroad and are teaching refugees how to build the same constructions while they are waiting for legal help and rehoming.

“Your kindness has affected my future so positively, my time at Exeter will be more focused on taking in as much knowledge as I possibly can. I can focus on developing my potential rather than being distracted by financial anxiety.”

Munanga Mubipe, 1st year LLB Law
Sara and Nigel Tozzi Scholar

Expanding access to Exeter

“Exeter Scholars has pushed me out of my comfort zone which benefited me hugely as it made me more confident in myself but also much more confident around other people.

Due to the programme I realised that I had the capability to achieve the grades I wanted and I was given an insight into university that I wouldn't have known otherwise.”

Participant from the Exeter Scholar's Programme

The Exeter Scholars programme gives academically able students from under represented groups the opportunity to progress to higher education.

Participants in the programme have the opportunity to find out more about university, develop a passion for a chosen subject and gain first-hand experience of student life at the University of Exeter.

As well as being able to seek advice from academics who are passionate about the subjects they teach, participants gain an exciting insight into the type of research carried out by universities and the impact it can have on our everyday lives.

In 2017/18 just over 500 individuals entered the programme.

The programme is designed to overcome the attainment barriers participants face. Participants who go on to meet the grades detailed in their standard University of Exeter entry offer receive an Exeter Scholars Attainment Award of £1,500 to support their first year of study at Exeter.

The programme is supported by a number of generous donors to the University who have made scholarships available to participants who succeed in becoming Exeter Senior Scholars and choose to study at Exeter.

64% of participants — Said the programme **INCREASED THEIR CONFIDENCE** in their ability to succeed at a leading university

73% of participants — Said the programme INCREASED THEIR **MOTIVATION** in their current studies

64% of participants — felt that the skills they **DEVELOPED** were useful in aiding their school based studies

70% of participants — Said the programme helped them make **INFORMED CHOICES** about whether to go to university

“Ensuring that the University of Exeter continues to diversify its student body and offer opportunities for all academically able young people is extremely important. The Exeter Scholars Awards recognise individuals for their academic attainment and their background. They open up opportunities to recipients as well as motivating them to do their best in their school studies and in their degree. These awards are only possible thanks to the generosity of donors.”

Mel Ruddock,
Exeter Scholars Programme Manager

Exercise and Sports Science student Lagi-Lagi Tuima

Reaching the top

> Having a sports scholarship for the 2017-18 academic year enabled me to train and perform consistently and effectively in both my studies and chosen sport. I strongly believe that the scholarship and support system I've received has made a positive impact on the success I've had this year.

Lagi-Lagi Tuima, BSc Exercise and Sport Sciences

Thanks to support from alumnus Phil Drury (Politics, 1994) and his wife Megan, three top rugby players have been able to attend Exeter with sports scholarships to develop their skills.

This year the support has helped Sports Sciences student Lagi-Lagi Tuima to reach the Senior England squad. She made her international debut at Twickenham in the Autumn Internationals, before also being called up for the Six Nations. Her first international try followed in the 43-8 victory over Scotland. Lagi-Lagi plays nationally in the Premiership for Bristol and had only been there for two months when she received her first call up.

In addition, Lagi was part of the winning Exeter team in the BUCS final against a tough Hartpury side, beating the opposition 35-32. The final was played at Twickenham, the home of English rugby. Lagi–Lagi said "The chance to play rugby at Twickenham made my entire 1st year and university experience memorable and unforgettable".

> Rugby at Exeter was a major part of my university experience and has always helped me through life. This is our opportunity to give back to the University and the sport that I hold in such high regard.

Phil Drury, Politics, 1994

Legacy donation enhances student accommodation

Anne Van Geyzel was a local Exeter resident and former Secretary to Vice-Chancellors Sir David Harrison and Sir Geoffrey Holland until her retirement.

When she passed away in February 2017, she left a gift of £1,000 to support the maintenance of the University grounds. Thanks to this legacy, 25 new trees have now been planted at Birks Grange. These trees contribute to biodiversity and allow University buildings to sit in, rather that dominate, the landscape.

Legacies make a tremendous difference. They are incredibly important to our work and provide a vital source of income for our teaching and research as well as ensuring we can provide an exceptional student experience. All gifts, of all sizes, are appreciated - for example just one percent of your estate could make a real impact.

If you would like to find out more about leaving a legacy and the long term influence it can have, please contact Clare Pearce at legacies@exeter.ac.uk

Grounds at Birks Grange, Student Accommodation.

Museum celebrates 20th Anniversary with new donation

The Bill Douglas CINEMA MUSEUM

> The fund will allow the museum to grow and develop into the future so that even more people can experience the wonderful artefacts and learn about moving image.

Dr Phil Wickham, Curator of the Bill Douglas Cinema Museum

The University is the custodian of the Bill Douglas Cinema Museum, the UK's foremost museum of moving image history. During the year Exeter benefited from a further donation of £180,000 from one of its founders, Peter Jewell.

The collection was gifted to Exeter 20 years ago, and this further donation supports the Museum's long term development. It has established an endowment fund to support the Museum across a range of curation and research activities, including PhD studentships, acquisitions, exhibitions, conservation and filmmaking.

Thanks to the support of the Bill Douglas and Peter Jewell Trust we were able to offer two visiting scholar stipends to enable research using the collections at the Museum. One stipend is available to academic and postgraduate researchers based in the UK, and is worth up to £500. The other is for international scholars (academics or postgraduates) and is worth up to £1,500.

Amelia Seely, who studied for an MSc in Film Curation at the University of Glasgow before coming to Exeter, was appointed to the Bill Douglas PhD studentship.

Peter Jewell at the BDCM 20th Anniversary event, 2 November 2017

How you can show your support

If you would like to make a gift to support the University of Exeter please visit: **www.exeter.ac.uk/donate**

To learn more on how you can leave a gift to Exeter in your Will please visit: **www.exeter.ac.uk/legacy**

To volunteer your time and expertise please visit: **www.exeter.ac.uk/alumnisupporters/volunteering**

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