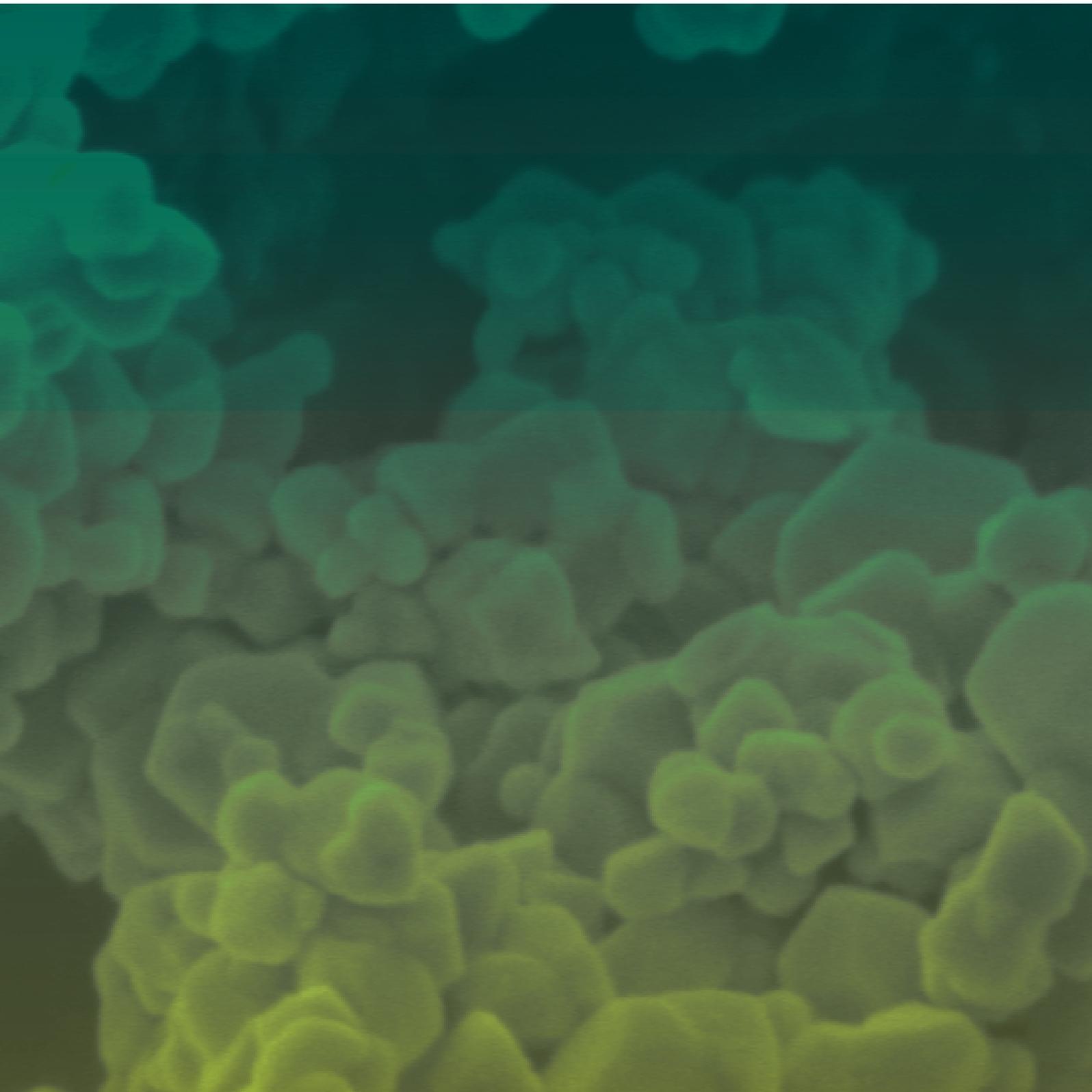


HOPE COLLEGE

S P E R A



SPOTLIGHT ON FACULTY RESEARCH AND SCHOLARLY WORK

| 2018 |

HOPE COLLEGE DUNE RESEARCH GROUP

When wind blasts dunes on Lake Michigan's east coast, complicated windflows develop on the side away from the wind — producing turbulent eddies like those around Hope geologist Dr. Edward Hansen (right) and whirlwinds like the one swirling around an ultrasonic anemometer (at left, behind Hope mathematician Dr. Brian Yurk) in fall 2017 on the Green Mountain Beach Dune south of Holland. They raced with geologists Professor Suzanne DeVries-Zimmerman and Dr. Brian Bodenbender to the dune ahead of a storm and braced themselves against heavy winds to place instruments that would collect data for 16 to 20 hours. The anemometers measure 3-D airflow every half-second, capturing movement north to south, east to west, and up and down. Closer to Yurk is a device he created that records individual grains of airborne sand striking microphones. Later, the scientists count the hits. It's common knowledge that dunes move; Hansen and Yurk think wind currents on a dune's leeward side contribute more than was previously understood — which could influence dune management strategies. They may be the first scientists to document the phenomenon precisely. After they return twice more to collect additional data, Dr. Thomas Smyth, a colleague at Liverpool Hope University in England, will run it through a computer model he's constructed, to test whether the model describes what the researchers expect.

For nearly 20 years, the Dune Research Group has focused on West Michigan's dunes and the eras and conditions under which they've moved in the past. Bodenbender's current dune research involves sediment traps; DeVries-Zimmerman is researching the ecophysiology of a large interdunal wetland in the Saugaruck Harbor Natural Area.





Hope College's motto, **SPERA IN DEO**, means "Hope in God."

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February 2018

Dear Friends,

It is with great pleasure that I introduce this inaugural issue of *Spera*, a publication focused on the research, scholarship and creative performance of Hope College faculty.

When prospective students ask what they can expect of Hope's academic community, we are honest: *Expect intellectual rigor.*

Here, our professors expect excellence — of their classes and of themselves. They are active teacher-scholars, as committed to their students as they are to their research. Under their mentorship, our students participate in the longstanding Hope tradition of collaborative faculty-student research, gaining what has been called a “graduate-level undergraduate experience.”

I hear from alumni of all ages who want to recognize the professors who engaged them in experiential opportunities during their time at Hope. For many, this engagement led to the life-changing discovery of an academic passion or a professional calling. With such a strong legacy of faculty impact, we are blessed to celebrate, year after year, accomplishments and accolades that distinguish our academic programs. The year 2017 was no exception. Among the highlights: Hope launched its Mellon Grand Challenges Initiative, earned the Campus-Wide Award for Undergraduate Research Accomplishments from the Council on Undergraduate Research, and received a record eighth Beckman Scholars Program award from the Arnold and Mabel Beckman Foundation.

It is always exciting to spread the word about these kinds of honors, and even more enjoyable to share success stories about our accomplished professors. For this publication, we reflect back on some of our favorite stories from 2017. I am confident that you'll be fascinated by the topics our professors — and their students — are tackling. And, if you're hungry for more updates on scholarship and innovation at Hope, please visit blogs.hope.edu/stories-of-hope regularly.

I am grateful for all our faculty members, current and retired, who nourish the academic lives of Hope students. Collectively committed to the Hope mission, they live out the college's motto, *Spera in Deo*, inside and outside the classroom, every day.

Grace and peace,

A handwritten signature in black ink that reads "Dennis N. Voskuil". The signature is written in a cursive style.

Rev. Dr. Dennis N. Voskuil
Interim President and Professor

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GRANT PROGRAMS

Throughout this issue of *Spera*, you will read about faculty work supported by grants from a wide range of organizations, including the National Science Foundation, the Andrew W. Mellon Foundation, the Great Lakes Colleges Association and the Lilly Endowment, Inc.

Also referenced throughout this publication are three programs specific to Hope College.

JACOB E. NYENHUIS FACULTY DEVELOPMENT GRANTS

Nyenhuis Grants support faculty members' development as scholars, with a specific focus on summer research. Recipients may conduct their grant-funded research independently or in collaboration with students. The program is named for Provost Emeritus Jacob E. Nyenhuis, Ph.D., whose promotion of faculty scholarship contributed to an academic climate in which teaching is prioritized as the highest purpose of scholarly excellence.

TOWSLEY RESEARCH SCHOLARS

Every year since 1997, Hope College has appointed one faculty member as a Towsley Research Scholar. (Occasionally, two have been appointed in a single year.) This professor serves as a Towsley Scholar for four years, receiving research funding each summer, plus one semester-long sabbatical. The Towsley Research Scholars Program is made possible by a grant from the Towsley Foundation of Midland, Michigan.

THE MELLON GRAND CHALLENGES INITIATIVE

Funded by a three-year \$800,000 grant from the Andrew W. Mellon Foundation, Hope's Mellon Grand Challenges Initiative supports faculty members working with one another and with students, across all departments, on large-scale, relevant challenges. With this grant, professors develop collaborative courses that model how to bring together the skills and insights of multiple disciplines to address complex issues. Launched in fall 2017, the Mellon Grand Challenges Initiative aims to support the development of several projects per semester, each involving two or more faculty members, for a potential total of 50 new linked courses by 2020. Dr. William Pannacker, DuMez Professor of English at Hope, serves as the senior director of the initiative.



Jeremiah and Lamentations through 16th-Century Eyes

JEFF TYLER, PH.D. | PROFESSOR OF RELIGION

Hope College church historian Dr. Jeff Tyler has spent the past 10 years in conversation with Reformation writers. As the 500th anniversary of the Protestant Reformation approached, he combed through books, lectures, sermons and other texts by nearly 50 Reformation thinkers to assemble an anthology of Protestant Reformers' comments on the Old Testament books of Jeremiah and Lamentations.

Swiss theologian Johannes Oecolampadius, born 1482. British poet and cleric John Donne, born 1572. Spanish priest St. John of the Cross. John Calvin. Martin Luther. Dozens of others.

In April, Tyler's book will be released as volume 11 of InterVarsity Press's *Reformation Commentary on Scripture* series (which is to total 29 volumes when it's completed in 2026). Designed as a resource for preachers, teachers and scholars, the series is assembling an unprecedented range of Reformation-era texts commenting on every passage in the Bible.

Writers in that day were extraordinarily prolific; Tyler calls the period "one of the golden ages of biblical interpretation." Buoyed by the invention of the printing press, he explains, preachers and theologians doubled down on rigorous biblical analysis — and in the absence of copyright law, editions of their work abounded, leaving today's church historians with a treasure trove.

"People were optimistic that the right books and texts could solve the problems of church and society. Enormous energy was devoted to commenting on the biblical text," Tyler reports. "The rapid spread of expertise in biblical languages — Greek and Hebrew — combined with a community of scholars across Europe who all spoke Latin. They could read each other's interpretations and generate an international discussion about the Bible."

Jeremiah and Lamentations don't get much press today. Not so during the Reformation. Jeremiah weaves together prophecy, reflections on his own life, and a theme profoundly relevant to Reformation thinkers: the

dissolution of a reformation in ancient Judea, specifically the reforms of King Josiah that his sons overturned.

“That’s what some of these commentators were worried about in Europe in the 1500s: that their reformation was failing as well,” Tyler says.

“There are places where Jeremiah reflects on the difficulties of faith and the painful tasks that God may give a person. There are two places where, like Job, he laments that he had been born; he cries out to God regarding his miserable life, the painful tasks he must undertake, and the hatred he receives from nearly everyone. This human, deeply vulnerable Jeremiah intrigued me.”

Suffering and faith are themes in Lamentations, too. It is a poem of mourning. “There, commentators reflect deeply on human emotions, and also on thinking about the suffering in Jeremiah’s day when Jerusalem was destroyed. There are descriptions of devastation, death and cannibalism in Lamentations, along with these gorgeous sections about trust in God’s faithfulness — that God will not forsake us, in the end.”

Some of Tyler’s students chafe at reading books about the Bible; they tell him they just want to read the Bible alone. He responds this way: “We read the Bible from our own context and we have insights because of that context. But we’re also limited in what we see. This is the importance of reading these people from other periods. They open up the Bible to us. The history of Christianity teaches us the Bible in a way that just reading the Bible itself doesn’t do.”

Through the lens of modern psychology, 21st-century readers recognize and sympathize with Jeremiah’s struggle, Tyler suggests. Sixteenth-century commentaries offer alternate perspectives. Some Protestant Reformers wrote of Jeremiah’s steadfast faith, but others saw him as a failure when he lost his nerve — and they declared he was a poor example for Christians to follow. Yet another stance was common among Catholic commentators such as St. John of the Cross, who singled out the prophet Jeremiah’s struggle as evidence of his close proximity to God — to which St. John related, as a mystic.

There was no road map for Tyler to follow as he explored these writings about Jeremiah and Lamentations. Some are well-known and easy to find, such as the five volumes

(in English translation) of Calvin’s commentary on the books. Others took detective work. Luther never wrote or lectured about Jeremiah; Tyler found his comments on the book embedded in cross-references within Luther’s lectures on Isaiah and the minor prophets.

Many of the texts Tyler pored over were in Latin or in German. Over the past decade he created the first English translation of many of them; he also updated some prior translations of Calvin’s work. His book reproduces 15th- and 16th-century English translations of French and Italian Reformers’ writing that Tyler considers reliable, but he updated archaic English that would baffle today’s readers. Works by Reformers who wrote in English, such as Donne and John Knox, will appear in the book as they did in the 1500s and 1600s.

Tyler completed the project with even more appreciation for the care and expertise Reformers brought to biblical analysis as they worked through every verse and chapter in detail, applying encyclopedic knowledge of the Bible and biblical geography.

“*There are places where Jeremiah reflects on the difficulties of faith and the painful tasks that God may give a person. . . . This human, deeply vulnerable Jeremiah intrigued me.*”

Reading lesser-known Reformers’ work, he found several especially engaging. Luther’s pastor and colleague Johannes Bugenhagen “writes profoundly for the everyday Christian and for the church,” Tyler says. As a historian, he enjoyed Bavarian musician-theologian Nikolaus Selnecker’s comments on the behavior of everyday people of his time — and the misbehavior of their rulers. “He is terrified that the Muslim Turks will be God’s new source of punishment on wayward Christians. Selnecker’s anxiety about invasion echoes our fears about victims of war and refugees today.” — A.S.

ONE ARCHBISHOP, TWO FUNERALS

JANIS GIBBS, PH.D. | ASSOCIATE PROFESSOR OF HISTORY



In the years following Martin Luther's posting of his *95 Theses*, a wave of Protestant conversion swept through many German cities. Why, then, did the residents of Cologne remain predominantly Catholic? To this day, this remains a mystery to historians, including Dr. Janis Gibbs, who has pursued the answer for years.

Long after completing her doctoral dissertation on religious identity in Cologne, Gibbs began to research the understanding of conversion in 16th-century Germany. Her research took place primarily in the city's archives until 2009, when the archives building collapsed, forcing Gibbs to move her work to other libraries.

In 2011, during sabbatical research funded by a grant from the Herzog August Bibliothek, Gibbs discovered something that fed her fascination: records about two archbishops of Cologne who became Protestants in the 1500s. The first, Hermann Von Wied, was deposed as archbishop (and from his position as prince of the Holy Roman Empire) when he was accused of being Protestant. The second married his concubine, a clear sign that he no longer considered himself a Roman Catholic priest. Von Wied particularly interests her, and back at Hope College she's continued to probe his story.

"When Hermann died shortly after his deposition, he had two funerals — a Protestant one (which was first; they buried him in his family's hometown in the Protestant church and provided the same funeral readings that Martin Luther received) and a Catholic one. The Catholic Church, in fact, paid the bill," Gibbs says. "The question is, *Why did he have two funerals?*"

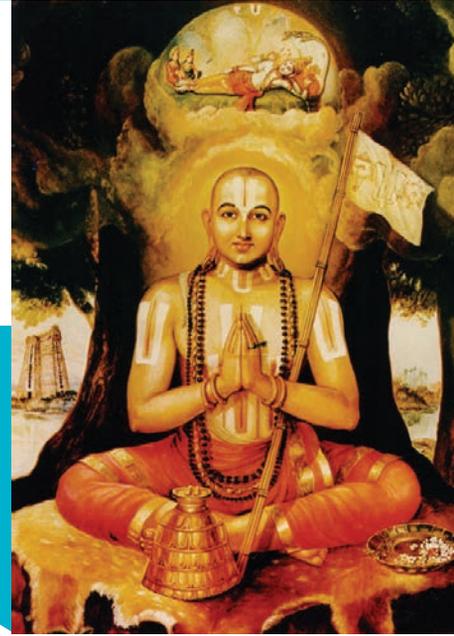
Gibbs believes that Protestants wanted to claim Hermann. They believed him to be Protestant, even though he didn't marry as most priests who converted to Protestantism did. The Catholic Church's decision to pay for the funeral is even more intriguing. After all, they deposed him for allowing Reformed clergy to preach in the diocese and for publishing a treatise on Reformation theology.

"At what point did differences with the traditional church become so severe that a person was no longer considered a member of the church, but rather a member of a dissident — Protestant — church?" she asks.

Gibbs studied this question with Brent Wilkinson '13, who served as a research assistant on the project. Today, Gibbs teaches a course about the Reformation every other fall, and she shares the findings with the students. "Even though much work still has to be done, I am one step closer to explaining the longstanding mystery of Cologne's lack of an official Reformation," says Gibbs. 🦋 — C.L.

Common Ground FOR LUTHER and an 11TH CENTURY HINDU LEADER

RAKESH PETER DASS, TH.D.
ASSISTANT PROFESSOR OF RELIGION



The year 2017: It marked the 500th anniversary of Martin Luther’s *95 Theses*. It also marked the 1,000th year, tradition holds, since the birth of Ramanuja, one of the most influential Hindu thinkers. To Dr. Rakesh Peter Dass, these coinciding mile-markers presented an opportunity to explore one of his favorite topics — the interaction of religions.

“Talking across religious traditions has always been easy and familiar territory for me,” says Peter Dass, who grew up in an interfaith family and surrounded by friends with various religious identities. “This led into my broader interest in studying Hinduism and Christianity together.”

Peter Dass is quick to identify the parallels between Luther and Ramanuja. “These individuals were both theologians, both philosophers, and had a massive influence on their respective religious traditions,” he says. “In a way, they both proposed their own forms of reformation.”

The similarities between Ramanuja and Luther begin with their common theological question: *What is the role of human works in the process of salvation?* Both theologians wrestled with the issue and concluded that

proper works are vital to salvation — but what makes a work “proper”? While cross-reading Luther’s *Treatise on Good Works* and Ramanuja’s writings, particularly his *Gita Bhasya*, Peter Dass realized that the theologians converge in their determination that proper works are those done not to earn salvation, but rather out of devotion to God and in light of scriptural instructions.

“In the end, Ramanuja and Luther come up with a similar answer: Act well and good, and act in ways informed by scripture,” he says.

Peter Dass presented this research in November 2017 in Boston at the annual meeting of the American Academy of Religion. He’s working on a book on the topic, which will be published by Fortress Press.

“My work generally covers religion and society,” Peter Dass says, “but this project in comparative theology is a deep dive into a few key texts by two specific religious authors. It’s very exciting. Comparative projects remind us that multiple religious traditions ask similar questions — and sometimes they even reach similar answers.”

 — S.M.

Image of Ramanuja by Debanjon (Own work) [CC BY-SA 4.0 (<https://creativecommons.org/licenses/by-sa/4.0/>)], via Wikimedia Commons

ON THE EVE OF SHAKESPEARE

JOHN COX, PH.D.
DUMEZ PROFESSOR EMERITUS
OF ENGLISH



How might the playwrights of the Reformation and pre-Reformation eras — even the great Bard of Avon himself, William Shakespeare — have reacted to seeing their works dissected and reviewed online?

Dr. John Cox doesn't know, of course — but he could make an educated guess. An internationally respected Shakespeare scholar and former president of the Conference on Christianity and Literature, Cox is creating what are known as critical editions of pre-Reformation plays for a website called Digital Renaissance Editions.

Currently he's working through a series of 15th- and 16th-century morality plays. He began with *Mankind*, then moved on to *Wisdom*.

"It's a play probably written by and for monks in a monastery, in a place called Bury St. Edmunds," Cox deduces. "The play actually has no title but has been given different titles, one of which is *Wisdom Who is Christ*. Obviously, 'Wisdom' in the play is Christ."

Compiling critical editions is a painstaking process involving equal measures of scholarship, analysis and investigation. "Establishing the text is the first thing," explains Cox. "*The Oxford English Dictionary* is absolutely crucial, as is the *Middle English Dictionary*. Some of the plays are very obscure, and some scholarly work is better than others."

"I find out various things that are alluded to in a text, like background and context. I annotate, or write notes, on what I find, write an introduction. There's lots of stuff to look at. It's a lot of work."

What fuels his drive for such meticulous research, particularly given his retirement from Hope College in 2015? His passion for Shakespeare, which sparked his enthusiasm for other playwrights who wrote concurrently or in the preceding era. Author of *The Devil and the Sacred in English Drama, 1350 to 1642*, Cox recently published an article on the stage prayers of Shakespeare contemporaries Christopher Marlowe and Ben Jonson.

"It occurred to me that no one had written about Shakespeare's prayers, and I thought I ought to know a little bit about the stage prayers of his contemporaries," Cox says. "Marlowe was so resistant to the status quo, such a rebel, while Jonson's instincts were much more conservative, more satirical. They made an interesting pairing."

Cox says there wasn't enough material for a book about prayers in Shakespeare's plays, but he wrote four chapters that were published as separate essays.

Playwrights of the Reformation era "were always writing about past events, not about their own culture," he says. "That was really not something they dared to do. It was too risky. However, in writing about other cultures they were really making comments about their own, but in disguise." ✍️ — J.M.

Visit internetshakespeare.uvic.ca/Library/Texts/JC/ to read Dr. Cox's critical edition of *Julius Caesar*.

Images: Benjamin Jonson (National Portrait Gallery, London, NPG 2752). Christopher Marlowe (*The Master and Fellows of Corpus Christi College, Cambridge*).

STUDENT-FACULTY RESEARCH

Honored repeatedly in 2017 for the quality of its undergraduate research program, Hope College is a magnet for students who want to dive into genuine scholarly work as undergraduates. Mentored collaborative research happens year-round — during the fall and spring semesters, in specialized May Term and June Term courses, and during the summer.

Hope's program is unusually broad and deep: At the college's 16th Celebration of Undergraduate Research and Creative Performance in spring 2017, 357 Hope students from 28 departments and programs presented their work. During the academic year that ended in May 2017, Hope faculty formally supervised 295 students in research during the academic year, plus 182 students over the summer. Participating students frequently become co-authors on articles published in peer-reviewed professional journals.

2017 HONORS

- The Council on Undergraduate Research selected Hope as one of just three colleges and universities nationwide to receive its annual Campus-Wide Award for Undergraduate Research Accomplishments. Hope is the only college in Michigan that has received this award, which is in its third year.
- *U.S. News & World Report* lauded Hope in its *2018 Best Colleges* guide (published in 2017) as exceptional for its emphasis on undergraduate research and creative projects. Hope is one of only 12 national liberal arts colleges that made the list — and one of only 42 institutions of all types.
- For an unprecedented eighth time, a foundation that sponsors bio-medical research recognized Hope College's excellence in faculty-student collaborative research. The Arnold and Mabel Beckman Foundation awarded \$104,000 to Hope to support four Hope science majors as they conduct research mentored by a Hope faculty member. The college received its first such award from Beckman 1998, and since then has named 26 Beckman Scholars. Ten now have Ph.D.s, four have obtained M.D.s, and two earned both; eight more are currently in graduate school. Hope's Beckman Scholars have published 37 papers based on their work at Hope, and 214 papers based on graduate, postdoctoral, or independent work.

Visit hope.edu/rankings to read about other 2017 honors and recognitions.

21st-Century Graffiti, with a 19th-Century Twist

HEIDI KRAUS, PH.D. | ASSISTANT PROFESSOR OF ART AND ART HISTORY
AND DIRECTOR OF THE DE PREE GALLERY

Dr. Heidi Kraus remembers precisely the moment it happened.

“When I was a young kid, I traveled to France,” recalls Kraus. “I remember walking into the Grand Gallery in the Louvre, where all the large-format paintings are. There was one painting in particular, ‘The Coronation of Napoleon’ by Jacques-Louis David. It’s basically life-sized and it depicts the moment when Napoleon crowns Josephine. I remember thinking, ‘This is the most amazing thing ever.’ I’m 12 years old, looking at these figures and they are just huge. It was like I was transported into that time, brought into that painting.”

“From that point on, I became fascinated with everything France.”

The passion she discovered as a child led Kraus to her professional focus on French art of the Napoleonic era. But in 2015, a new project captured her imagination — one that bridges centuries and is rooted in a devastating act of terrorism.

Kraus has lived and studied in the City of Lights, and lectures to Hope students in the Louvre under Jacques-Louis David’s majestic painting during May Term sessions. So she responded even more viscerally than many Americans to the appalling news in late 2015 of coordinated terrorist attacks in and around Paris, which killed 130 people. “I know this city. I know where these things happened,” she relates.

“My only connection to the events there was via social media. Having this really intimate relationship with that city and not being able to do anything, having to experience it all from afar, was gut-wrenching.”

Weeks later, reading online accounts of the bombings, shootings and deadly siege at a rock concert inside the Bataclan theater, she came across an article and photo that stopped her in her tracks. Parents whose children’s school is on a block where one of the attacks occurred had organized a neighborhood collective to reclaim that street through art.

“Two cafés along that street were attack sites, and you can imagine parents having to walk their children past them every day on their way to school,” says Kraus. “What was created there was called the ‘Wall of Love,’ and one of the images on the wall was by an artist named Jo Di Bona, who clearly had a sense of art history. He looked to an extremely famous image from 1830, ‘Liberty Leading the People’ by Eugène Delacroix, and reinterpreted it on the wall.” The Delacroix painting includes a female figure known as Marianne, who personifies liberty and the French Republic. “That image is super-laden with meaning in a 19th-century context, but what does it mean now, post-attacks?”

As that rare art historian also trained in studio art, Kraus was fascinated by this re-creation of the old to represent the new on the streets of Paris.



Encouraged by her Hope May Term teaching partner, historian Dr. Lauren Janes, Kraus began a new, ambitious project: to document street art and public spaces inspired by the terror attacks. Kraus and a student collaborator — art history and psychology double major Julia Hines '18 — began digitally mapping the locations in proximity to Paris landmarks, and charting and assessing changes to the artwork and surrounding areas over time.

“The visualization of memory is really what this project has been all about,” she says. “And when you say ‘French’ today, you’re not just talking about white men anymore. What about the huge Muslim population? Does liberty extend to them as well? And how does that materialize in art?”

Kraus recalls the first time she visited the “Wall of Love” just months after the attacks. Within seconds she was approached by locals demanding to know who she was. “Terrorist tourism exists, and I was extremely cautious when I first approached that wall,” says Kraus. “Once I explained I was a professor conducting research, one of them led Lauren and me on a three-hour street art tour.”

When Kraus returned with Hines in May 2017, the wall had been painted over. “Julia and I immediately go, ‘Oh, no!’” Kraus recalls. “Then it came to me: Of course it’s gone. That’s the nature of street art. It’s ephemeral. It doesn’t last. But given the fact that this was almost a memorial, I was a little surprised. With this idea of France being so old and having so much historical memory, what does that mean?”

The same process played out at the Place de la République, a public square featuring a famous statue of Marianne. Following the attacks, Kraus found it transformed into a *lieux de mémoires* — “place of memory.” “What I was stunned by was that the monument was completely covered, head to toe, with graffiti, memorials, candles,” says Kraus. “It was a place where the people could go to grieve, and to create work where they could express themselves. It stayed up for about seven or eight months, then a month or so after I left the city they quickly took it down. They cleaned it all, and put a lot of the memorials and ephemera into a museum. It was almost as if the city was saying, ‘OK, you’ve had your time. You’ve mourned. Now it’s time to move on.’”

Once digital mapping of the street art is complete, Hines will catalog and annotate the many photographs that she and Kraus have taken. They’ll be uploaded to a website that’s part of the Mellon Grand Challenges Initiative funded by the Andrew W. Mellon Foundation.

Meanwhile, Kraus has a related project underway. She has been asked by a major academic press to write a book on why looking at art is important in the 21st century.

She recently co-authored *A Short History of the Ancient World* with Purdue University professor of classics Nicholas Rauh — a four-year endeavor — for the University of Toronto Press, which released the book in December 2017.

✍️ — J.M.

Visit parisstories.org/projects-2/ to view digitally mapped images of Paris street art.





Performing Debussy as a Scholarly Pursuit

ANDREW LE, PH.D. | ASSOCIATE PROFESSOR OF MUSIC

Dr. Andrew “Drew” Le completed his second CD in October 2017, performing all 12 piano études by French composer Claude Debussy, and it was an all-Hope production.

The album was recorded — in one day — in the college’s gleaming new Jack H. Miller Center for Musical Arts, performed on the 9-foot Steinway Model D grand piano that Le hand-picked for Hope from the Steinway factory, and produced by the college’s director of recording arts, Drew Elliot. It’s scheduled for release in summer 2018, the 100th anniversary of Debussy’s death.

“I wanted this album to showcase the best of Hope,” says Le. “I go through phases with different composers, but the one I return to time and again is Claude Debussy. There is something about his life story, his daringness as a composer, that has always gripped my heart.”

Le says that his research and rehearsal to perform compositions such as the études — pieces so technically difficult that Debussy himself called them “a warning to pianists not to take up the musical profession unless they have remarkable hands” — help inform his scholarship and advance his teaching methods as a piano instructor. Apparently the strategy is successful: Le was honored with a 2016 Top Teacher award from Steinway & Sons last year

for outstanding leadership in piano education. (Linda Strouf, adjunct associate professor of music, also received a 2016 Top Teacher award from the company.)

The award is not Le’s first recognition from Steinway; the company named him a Steinway Artist in 2013.

Le, a Hope faculty member since 2005, says he’s grateful Hope acknowledges his performances and the process of mastering the piano repertoire as a scholarly endeavor. “Not all institutions recognize that,” he says. “I want to get a grasp on as much of the vast piano repertoire as I can so I can teach it well. It’s important my students understand from a historical perspective why a piece was written and the context in which it was composed.”

Le says that his students were extremely curious about the process of recording the CD, so he shared his preparation openly. “They were all fascinated by the process of rediscovering what it takes to really get to know a piece of music,” he says. “It aided my scholarship by having to re-teach myself how to prepare. It’s made me a better teacher.” 🎹 — J.M.

Visit www.drewle.com/listen to listen to recordings of Le’s performances.

THE PLAY'S THE THING

Diversity and fresh starts were hallmarks of two of Professor Rich Perez's 2017 projects. Summer took him to Chicago to direct the UrbanTheatre Company's production of Richard Montoya's *Water & Power*; Perez and Montoya updated the script to shift the gritty drama's setting from Los Angeles to Chicago, with turns of phrase and cultural references specific to the Midwest. In the fall he began collaborating with Hope students to create a new play to give female actors powerful roles. They're making it a western because in that genre, women usually get short shrift. (Here, left to right, Perez exchanges ideas with cast members Sam Hill '18, Olivia Lehnertz '19 and Akia Smith '18 as they work on the new script.) Writing will continue through the winter, and the production will be staged at the DeWitt Center main theater April 13-15 and 19-21.





True North

D. R. James

The lone crow on the lone pole
where the weathervane used to whirl
insinuates my need for misdirection.

He is an arrow of skittish attention,
of scant intention: the cock and hop,
the flick and caw toward anything

on the wind. Now angling east, now
south by southwest, he designates
with beak then disagreeing tail feathers,

with a lean-to and a shoulder scrunch,
with an attitude from his beady black eye—
as if he were ever the one to judge.

And once he's spun like a pin on a binnacle
past all points of some madcap inner compass—
once the clouds have bowed to push on

and the grasses waved their gratefulness—
he unfurls the shifty sails of his wings
and the breeze relieves him of his post.

This poem was included in “Split-Level,” a chapbook of poetry by David James published in 2017. James is an adjunct associate professor of English and coordinator of academic coaching at Hope College. For more about his books of poetry, see page 48.



City by City, the Arts Interpret Culture

MARÍA CLAUDIA ANDRÉ, PH.D. | PROFESSOR OF SPANISH

In the evening in some Buenos Aires clubs, guitars and accordions called *bandoneons* weave syncopated tango rhythms that draw patrons to the dance floor and echo back to the early 20th century. In Mexico City, vivid murals still transform buildings into huge canvasses, sustaining a genre born after World War I when the Mexican muralism movement introduced the world to artists like Diego Rivera, Jose Clemente Orozco and David Alfaro Siqueiros. More than half a century after “The Girl from Ipanema” won a Grammy as 1965’s Record of the Year, in Rio de Janeiro one still hears the famous bossa nova song, which Antonio Carlos Jobim and Vinicius de Moraes wrote about a sensuous woman they saw in Rio’s south-side Ipanema neighborhood.

Dr. María Claudia André is completing a project to capture the artistic vibrancy of these three Latin American megacities. In summer 2017, André and Hope students Brian Molhoek '18 and Sara Plohetski '18 conducted research at the Library of Congress. Since then André has transformed their findings into digital maps that graphically convey how writers, composers and visual artists represented each city from the 1920s through 2000. Tomás Fernández-Abrevaya, a native teaching assistant on the staff of the Department of Modern and Classical Languages, has assisted with the technical phase.

To grasp the impact of the arts in these cities, André explains, you have to consider the cultural background of the people who’ve settled in each one. “The people of Buenos Aires are mostly of European descent,” she says. “Rio de Janeiro embraces both Portuguese and African heritage, while Mexico City has Aztec and other pre-Columbian legacy and history.”

Digital mapping allows researchers to format information into a virtual image and project it onto a map. In André’s project, the maps are linked to essays, poems, short stories, artwork, music and videos. “If there is a poem written about a specific neighborhood, the poem as well as the poet’s information would be included,” she says. Some of the art and music is quite specific; for example, more than 300 tangos refer to Buenos Aires or even to one of its streets or neighborhoods.

André’s research has drawn interest from institutions in Latin America. On her 2017 visit to Argentina, the director of Buenos Aires’ city museum was excited to hear about her project, to which he plans to link from the museum’s website. She hopes to make similar bonds with institutions in the other cities.

The project is supported by a grant from the Great Lakes Colleges Association. André hopes it may lead to future collaborative faculty-student research initiatives at Hope and other GLCA member colleges. ✨ — G.C.

Visit arcg.is/ljy5Df to view a sample digital map of Buenos Aires.
(Links to images and essays will be added this spring.)



MICROECOLOGY CLOSE TO HOME

AARON BEST, PH.D.
HARRISON C. AND MARY L. VISSER PROFESSOR OF GENETICS

For more than 15 years, Hope faculty members have worked alongside students to research Lake Macatawa's watershed. Decades of agricultural run-off polluted it with nutrients that can kill fish, harm plant life, lead to algal blooms, and trigger high levels of *E. coli* bacteria.

To spark students' interest in saving local habitats, and to monitor nutrient levels and bacterial populations to determine whether current environmental restoration programs are effective in the Macatawa watershed, Hope College established the "Day1: Watershed" program in 2015. Starting with their first day on campus, science-focused freshmen can engage in hands-on research with biologist Dr. Aaron Best, chemist Dr. Brent Krueger and physicist Dr. Catherine Mader through a First Year Seminar and introductory biology lab.

Throughout the last three years, students have collected and analyzed water samples and contributed their findings to a large-scale research project that has four long-term goals: to offer the Holland community information about students' latest investigations; to reduce the amount of nutrients in the lake; to decrease bacterial pollution; and, ultimately, to clarify Lake Macatawa. In December 2017 the Macatawa Area Coordinating Council honored the Day1: Watershed project

with its Watershed Stakeholder of the Year Award, which honors efforts to improve the water quality of the watershed.

"We are gathering samples that monitor the amounts and types of bacteria present, including *E. coli*. As we begin to understand the levels of *E. coli* present, we are also trying to determine which other microbes exist in the watershed and how the levels of *E. coli* can be correlated with the levels of the other microbes," Best explains.

"It will take time before significant change is noticed. We are currently monitoring for nutrients like phosphorus. The goal is to reduce those levels to 50 parts per billion of phosphorus, a 70 percent reduction over current levels."

This research is the first of its kind, as students are chronicle multiple strains of *E. coli* that occur in unique environments — strains potentially unassociated with host organisms. The project is funded by Best's three-year, \$775,316 grant from the National Science Foundation, the largest single research grant ever received by a Hope professor.

In addition to Hope students, Best's research team includes Dr. Matthew DeJongh, professor of computer science;

Dr. Michael Pikaart, associate professor of chemistry; and Dr. Stephen Scogin, assistant professor of biology and education. Each member of the team brings particular expertise to the project in areas such as bioinformatics data analysis, water chemistry, and research into how professors can provide students the best learning experience.

To improve their watershed monitoring techniques, Best and his colleagues are considering alternatives to *E. coli* culture counts. They're investigating whether other bacterial organisms, or sets of organisms, may indicate whether water is safe for human contact — and whether there are better ways to monitor them than the current process of counting. They also want to determine which types of genes are present in the *E. coli* genome itself, which strains of the bacteria are problematic, and how they can be identified in the first place.

“Almost all of the genome sequences of *E. coli* available in public databases are derived from a diseased state or a clinical source, and there are thousands of them,” Best explains. “Very few are derived from a non-diseased state. So, with that in mind, we're trying to answer two questions: *Are the E. coli present in Lake Macatawa likely to be pathogens? And, if so, what is the source?*”

In summer 2017, Best worked with 21 Hope student research assistants. For roughly three months, they sampled 12 different sites at the watershed every Tuesday. One group of students studied the levels of chemicals, nutrients and sediments in the water. Another group tested water samples to determine how much *E. coli* was in the watershed; these samples were used to isolate individual strains, which were then used for genome sequencing and compared to other genomes. A third group studied the same water samples as the genome group, but isolated DNA from all of the organisms that were present; DNA was then sequenced for particular genes to identify each of the organisms.

“In doing so, you come up with community profiles. Which types of bacteria are present, and how much?” Best explains. “You then analyze those for patterns. Does the winter look the same as the summer? What about rain patterns?”

“There are clearly seasonal variations as well. We're beginning to understand what is present, and what that might mean. There is a nice seasonal cycle at this point, as we can show what freshwater systems look like during the summer and winter months. We can then compare different years this way and see if patterns are consistent throughout.”

To date, the research has proven that sediment and nutrient levels are still very high, although they should decline over time. For example, phosphorus and nitrate levels are above target, and *E. coli* remains high in streams. Nonetheless, although the lake's strains of *E. coli* are similar in appearance to traditional *E. coli*, they don't have the same traits as known pathogens. The number of genes that help *E. coli* to cause disease appears to be much lower than in traditional strains.



Much of this research is integrated into Hope classes. Successive groups of students can learn about — and contribute to — the findings every year.

“Students from the Day1: Watershed program, as well as upper-level microbiology courses, have continued to work on the broader watershed project in my research lab since they already know about the science and techniques of the research from past experiences,” Best adds. “This greatly advances the speed of the project and allows us to analyze incoming data at a deeper level.”

Best expects that this research may ultimately add 750 to 800 new genome sequences to public databases, each of which can be used by researchers worldwide.

“As we continue to write about the initial data, we will not only be contributing to public databases, but we will also educate people locally and nationally about our findings and their impact,” he says. “We have already presented our work at community informational meetings as well as national conferences, and will continue to do so, as we learn more about the watershed — and strive to improve it.” 🙌 — C.L.

Visit blogs.hope.edu/day1 to read the Day1 student blog.

ENGINEERING INFORMED BY BIOLOGY

COURTNEY PECKENS, PH.D.
ASSISTANT PROFESSOR OF ENGINEERING

Destructive earthquakes in Mexico, Chile and Russia in 2017 underscored the importance — and urgency — of the kind of innovative research Dr. Courtney Peckens is pursuing in VanderWerf Hall's Haworth Engineering Center.

Supported by a three-year grant from the National Science Foundation and a Nyenhuis Grant from Hope College, Peckens is developing and testing wireless sensor nodes that she hopes will lessen the impact of earthquakes on civil infrastructure like buildings and bridges.

"The sensor nodes detect the motion of a structure due to an earthquake," Peckens explains. "This research is looking at developing ways of mitigating the effects of that earthquake by implementing different control algorithms. As a building is moving, you want to apply a counterbalancing force to it in order to offset the earthquake's effect."

Other engineers have developed a variety of devices called "actuators" that can apply that counterbalancing force. The purpose of Peckens' wireless nodes, which are about half the size of a cell phone, is to reduce the amount of computational

time required to make a control decision based on the structure's movement. This will allow the actuators to respond more quickly and produce more effective control. As earthquakes are in general very rapid, any time reduction in this process is desirable.

What makes Peckens' research unique is that her engineering designs are based in part on the human nervous system, which makes complex decisions in quick, simple ways.

"In general, engineering is not naturally linked to biology," she acknowledges. "But in recent years there's been a fairly large push to do biology-inspired engineering. As the field of biology makes more and more advances, it's easier for people to draw more parallels between the two."

Hope students Anne O'Donnell '18 and Taylor Rink '18 helped Peckens put her theories to the test for a 10-week research program in summer 2017. In her laboratory they used a small "shaker table," placed an even smaller mockup of a one-story structure on top of it, and put the shaker table into motion to simulate various earthquake scenarios.



"In my lab, we do initial analysis through computer simulations, but then everything we do has to be validated in experiments," Peckens says. "Something may work perfectly in simulation, but doing it experimentally is an entirely different thing."

Peckens, who advises Hope's student chapter of Engineers Without Borders, concedes that her active control systems may not be adopted in all structures. "Generally there's more upkeep needed, so building owners might prefer passive techniques. Taller buildings would be more critical," she says.

"The ideal outcome would be no damage. But earthquakes are really variable, so a large minimization of damage would be great, for sure."

✍️ — J.M.



At the Galaxy's Center, a Mystery

PETER GONTHIER, PH.D. | PROFESSOR OF PHYSICS

At the center of our Milky Way Galaxy, something's going on that puzzles astrophysicists. Decades of intense research built expectations about the gamma rays that ought to emanate from that zone. Yet NASA's Fermi Gamma-Ray Space Telescope picks up levels that exceed expectations.

Why?

Here's Dr. Peter Gonthier's take: Perhaps there's a population of millisecond pulsars at the Galactic Center that technology can't yet detect. In 2017 he and long-time research colleague Dr. Alice Harding of NASA made this case in a paper co-authored with Dr. Yew Meng Koh, assistant professor of mathematics at Hope, and several students from other institutions. They've submitted the article to a peer-reviewed journal.

Pulsars are dense, rapidly rotating stars that appear to pulse as they come into view. Millisecond pulsars rotate extraordinarily fast, as many as 700 times per second.

Some other astrophysicists think that the gamma-ray excess points to dark matter annihilation — the ongoing decay of matter that astronomers haven't observed directly but are increasingly confident exists.

Gonthier doesn't think that all research should pivot in that direction. "Rather than saying it's a source we know nothing about — dark matter — we are saying, 'Let's go after sources that we know.' We know what millisecond pulsars look like and what they contribute. The simulated spectrum that we provide in this paper is exactly the spectrum of the Galactic Center gamma-ray excess."

He and his colleagues generated that simulated spectrum using a model, the bread and butter of Gonthier's research on neutron stars, pulsars, and radio x-ray and gamma-ray astrophysics. At his computer in VanderWerf Hall crunching NASA data, and in his annual month-long summer foray with several Hope College students to the agency's Goddard Space Flight Center in Maryland, he builds computer models to assess phenomena that scientists can't measure in a literal sense — that is, in the laboratory.

Pure research of this type isn't focused on a hoped-for practical application. At times, though, it leads to one. Gonthier offers this example: Implications of Einstein's theory of relativity are key to the conceptual design that enables cell phones to keep time precise even though they are communicating with satellites whose clocks are "moving" relative to ours as they orbit the Earth. The technology of magnetic resonance imaging devices, x-ray machines and a great deal of other modern medical technology also grew out of concepts and discoveries of pure research.

During the school year, Gonthier conducts research along with Hope students, including (pictured above) Calvin Gentry '18, whose summer work has been supported by the Charles Bibart Summer Research Fund, and Josiah Brouwer '18. Some of Gonthier's students go on to careers in astrophysics and related scientific fields. "We're basically treating them as graduate students. That's what prepares them and what allows them to be so successful in graduate school," he says. 🏠 — G.C.



EXPLORING A LINK BETWEEN DNA AND FORGIVENESS

GERALD GRIFFIN, PH.D. | ASSISTANT PROFESSOR OF PSYCHOLOGY AND BIOLOGY
CHARLOTTE VANOYEN-WITVLIET, PH.D. | PROFESSOR OF PSYCHOLOGY
LINDSEY ROOT LUNA, PH.D. | ASSOCIATE PROFESSOR OF PSYCHOLOGY
JILL VANDERSTOEP, M.S. | ADJUNCT PROFESSOR OF MATHEMATICS

Imagine this: You tell a friend something important in confidence, only to have that friend breach your trust and gossip about you with others. It was wrong, and it hurts. A collaborative research project underway at Hope College suggests that your reaction to unsettled conflicts and your ability to forgive those who wronged you may not only be the result of your values. It could also be influenced by your genetic makeup.

Psychologists Dr. Charlotte VanOyen-Witvliet and Dr. Gerald Griffin knew of the link between oxytocin and empathy and had read some of the literature focused on how hormones rewire the brain. “We wanted to see if we could extend this idea to forgiveness, since empathy is an important part of the forgiveness process,” says Griffin, a neuroscientist who teaches both psychology and biology at Hope. VanOyen-Witvliet has conducted research on empathy and forgiveness for 20 years, so in 2017 they got to work.

Witvliet and Griffin assembled a Hope College research team that spans departments and generations. Psychologist Dr. Lindsey Root Luna, who was Witvliet’s student when she attended Hope, was involved in design and analyses. Professor Jill VanderStoep of the Department of Mathematics contributed statistical expertise. Rounding out the team, 11 students involved in psychology or biology research at Hope played a vital role in carrying out the research. The researchers expect this interdisciplinary approach to contribute much more to the field than they could have accomplished if they’d stayed in their own silos.

A grant from the college’s Frost Research Center supported the pilot study.

Griffin and Witvliet began by analyzing samples of their own saliva, along with a sample from one of the student research assistants. Next, they confirmed accurate genotyping — that is, extracted DNA — and used a technique called

quantitative polymerase chain reaction to determine the particular DNA code that each of the three individuals has at a particular location in his or her DNA. Then, they began a project with 200 saliva samples from students enrolled in psychology, health dynamics and neuroscience courses.

After providing saliva samples, the participants completed a computerized survey and writing exercise. The researchers asked each individual to recall — relive, even — a real-life offense against them that triggered a conflict that remains unresolved. The participants also were asked to do two things: focus on ways they could genuinely desire their offender’s “good change” (*a compassionate reappraisal*), and focus on ways that they had personally grown through facing the hardship (*a benefit-focused reappraisal*). The participants’ responses helped the researchers determine each participant’s forgiveness traits.

There may be some biological underpinning that can make it harder for some people to forgive others.

Other researchers have asked experimental subjects to do these types of reappraisal, but combining them back-to-back in this study extends that prior research. “We were curious about which intervention would actually bring the participant closer to forgiving the person — did the order in which they were asked matter?” Griffin says.

Griffin trained student researchers to examine each saliva sample for a single nucleotide polymorphism (SNP) on the



oxytocin receptor gene, which has been associated with human individual variation in empathy behaviors. Their lab analysis involved extracting the DNA from the saliva, purifying the DNA, and determining the DNA concentration as well as the particular genotype each individual had in this particular SNP.

Laboratory analysis is continuing, but Griffin and Witvliet report that the team's research to date indicates that genetics are associated with individuals' forgiveness of their offenders.

That doesn't mean, though, that genetics *control* whether a particular person will hold grudges or forgive. DNA may make empathy harder for some people — but not impossible.

"If we start to speak about it that way, then we can appreciate the efforts people go through to be able to forgive," Griffin says. "We're all at different starting points."

Witvliet notes that effective counseling interventions exist that help people forgive and learn to modulate their emotional responses and behavior, across genotypes. "This could give additional information to a therapist or clinical psychologist in order to better understand their patients and their struggle with these types of behavior," Griffin says.

They also see relational ramifications, and hope that the findings of this study will enhance people's understanding of others who have difficulty demonstrating empathy and forgiveness.

"I have to see you as a human again in order to forgive you. And I have to recognize that I, too, need to be forgiven," Griffin says. "For some people, it's harder to connect with others from the start. How can we begin to peel that away?"

✍️ — S.M.

Opening Research Doors for College Students Worldwide

MICHAEL PIKAART, PH.D. | ASSOCIATE PROFESSOR OF CHEMISTRY



On a spring Thursday morning, climb the stairs to the Schaap Science Center biochemistry lab and you'll find a dozen detectives at work. Each pair of student researchers is analyzing a protein that scientists don't yet understand. Interpreting 3-D images, culturing bacteria and using gel electrophoresis to assess the size and behavior of particles, they are trying to discover how each protein's shape determines its function.

Dr. Michael Pikaart, whose previous research focused on a protein that “turns genes on” in blood cell division and growth, has always had his Hope College students tackle real research in his biochem lab. That's not the case, though, at every college. Some professors assign lab work to students that contributes to the professor's own research about one particular protein — tasks that may not be truly exploratory. And even in upper-level science labs at many undergraduate institutions, students replicate experiments whose outcome is already known, with the goal of learning techniques that will prove useful later in careers or graduate school. Pikaart calls those “cookbook labs,” and he's not a fan.

He is at work with a group of colleagues to create online materials that will make it easier for other professors to develop better laboratory experiences for their students. Faculty from eight colleges are participating in a National Science Foundation-funded five-year project to build a “how-to” library online that will be open-sourced for use by any teacher of biochemistry. The initial round of NSF grants came in 2015, followed by an additional three-year NSF grant in 2017 to help bring the project to fruition. In a weekly conference call, the professors update one another on their particular tasks, and they gather in person periodically to fine-tune the materials in development, which will include everything from YouTube videos to model timelines to resource lists. (Need to buy some bacteria? The vendor of choice is Arizona State University.)

Pikaart's partners in this initiative teach at Rochester Institute of Technology, California Polytechnic San Luis Obispo, Oral Roberts, St. Mary's University in Texas, Ursinus, Purdue and SUNY Oswego. Some are specialists in computational biochemistry, which Pikaart confesses is a stretch for him — just as his specialty in protein biochemistry is a stretch for some of his partners in this consortium. Hence their project, which will give biochemistry instructors tools to navigate topics outside their specialty area that will make it easier for them to launch lab experiences that challenge students with real research.

“Studies show that students who get involved in research show greater persistence through college — greater graduation rates, greater career success,” Pikaart reports. A hypothesis undergirding the project is that true research teaches the same techniques students would learn in less ambitious labs while also giving them a taste of how science works. In the process it cultivates students' confidence, independence and initiative.

Experimental science involves uncertainty. Sometimes projects hit blind alleys. “Do we throw up our hands and say, ‘We don't know how to do this’? Well, no. Supporting students in open-ended research projects helps them learn that sense of resilience. We want our medical folks to be able to figure stuff out,” he says.

“*Studies show that students who get involved in research show greater persistence through college — greater graduation rates, greater career success.*”

About half of his biochemistry lab students have their sights set on a health profession. Many of the others plan on graduate study in another scientific field.

Summer research can build independence and resilience for motivated science majors, “but we can't deliver that to every student who comes through the door,” Pikaart notes. Integrating exploratory research into college courses entices students who might not assertively seek out such



*Crystal structure, protein DSM2588
[Chitinophaga pinensis]*

opportunities, and some discover they're good at it — and find it fun. “If it's one and done, that's a win. If it's a gateway to a career in science, that's a win,” he says.

In Hope College's interdisciplinary major in biochemistry and molecular biology, students take organic chemistry and then move on to a two-semester biochem sequence: Biochemistry 1 in the fall, followed by Biochemistry 2 in the spring. Concurrent with Biochem 2, about half of the students in that class also take the optional biochem lab with Pikaart — some for the first half of spring semester and the rest during the second half. Their five hours in the lab each Thursday morning are a deep dive into sustained experimental work.

Roughly half of their research enterprise is examination of the structure of the proteins that they will study. There are tens of thousands of proteins, and images of many of them can be viewed online in public databases. Each visual component of what can look like a tangle of Christmas ribbon has a specific meaning, like letters in a word. Like MRI images, they record minute interactions at the molecular level. Through bioinformatics, a researcher can compare the amino acid sequence of an unknown protein to the structures of others whose function is already known.

Pikaart's students' hands-on lab research includes culturing bacteria in shaker flasks, breaking them open with ultrasound (or just “shaking the heck out of them”), and purifying the proteins the bacteria have made. In test tubes, they introduce molecules a protein might interact with, and observe how fast the solution changes color. Mistakes happen and are taken in stride. The steps for leading students through these and other exploratory processes will be spelled out in the materials that Pikaart and his fellow consortium members will solidify over the next few years.

✍️ — A.S.

SENSING A CALLING, SHAPING A VOCATION

UNDERSTANDING “CALLING” IN A MULTI-FAITH SOCIETY

DAVID CUNNINGHAM, PH.D.
PROFESSOR OF RELIGION AND DIRECTOR OF NETVUE

Hands down, here's a college senior's least favorite question: *What are you going to do after graduation?* Since 2003 Hope College has taken a focused approach to helping students answer it well.

Dr. David Cunningham arrived at Hope in 2003 to launch the college's CrossRoads Project, in which students explore what gives them joy — and consider career options with that in mind. In 2017 he completed the process of editing a three-volume series intended to persuade and equip more colleges and universities to do the same — that is, to help students discern a calling to a particular way of life. In September 2017, Cunningham became director of NetVUE (Network for Vocation in Undergraduate Education), the initiative that undergirds programs like CrossRoads at 217 U.S. colleges and universities. NetVUE's national office has relocated to the Hope campus.



Oxford University Press will publish *Hearing Vocation Differently: Meaning, Purpose, and Identity in the Multi-Faith Academy* in early 2019. It caps a project that Cunningham began in 2011 by planning seminars for theologians and other scholars to discuss vocation. Since then he's led seminars, networked with participants, solicited and edited essays, and shepherded three books through the publishing process. Volumes one and two of the series came out in 2016 and 2017. The first, *At This Time and in This Place: Vocation and Higher Education*, was one of three finalists for the 2017 Lilly Fellows Program Book Award, among 23 books nominated. The biennial award honors books about higher education and the Christian intellectual tradition.

“Vocation is about all the aspects of life that attract us. One difficulty undergraduates often have is they are attracted to a job first. But the question is, ‘*What kind of life am I being drawn toward?*’” Cunningham says. “Domestic life, civic life, voluntary societies — churches or civic clubs or neighborhood associations — all those things are going to be in people's lives as well, not just the job. All of these are going to be shaped by the broader experiences of a college education.”

Hope was among 88 schools that piloted Programs for the Theological Exploration of Vocation, funded by the Indianapolis-based Lilly Endowment, Inc. These programs expanded to include more institutions through NetVUE, which is a program of the Council of Independent Colleges. Many NetVUE members are church-related schools; such programs are less common in secular institutions. The upcoming book addresses how to make the concepts of calling and vocation accessible to people of various faiths, or those who claim no faith at all.

“I'm a Christian theologian, so one of the challenges for me was to keep it open and truly multi-faith,” Cunningham says. “It's not a book about what vocation means to a Muslim or Buddhist, but about how people of other faiths address the big questions of life. It doesn't ask people to abandon the notion that God may be calling them, but to recognize that others may feel the same calling, the same pull, without the same understanding of God.” 🍃 — A.S.

INVITING LOCAL CHURCHES TO FOCUS ON VOCATION

JONATHAN HAGOOD, PH.D.
ASSOCIATE PROFESSOR OF HISTORY AND
ASSOCIATE DEAN FOR TEACHING AND LEARNING

In 1998, Dr. Jonathan Hagood completed his undergraduate studies at the University of Texas with both a professional degree in architecture and a bachelor's in Latin American Studies. After working in architecture for a few years, he started an IT consulting firm in San Francisco before answering the call to pursue graduate study in history and the vocation of a college professor.

With his unique educational and professional journey, it makes sense, then, that as a Hope College professor and dean, Hagood led the college's 2017 effort to secure a \$1.5 million grant to help others discern vocational calling. Awarded by the Lilly Endowment Inc., the grant will provide support to area churches to create and enhance programs that will help their members explore vocation in their lives.

"Sharing the winding path of my vocational discernment helps me explain to others that we often do not fully understand the good work to which God has called us to do when we are young — and maybe not even when we're older," Hagood admits.

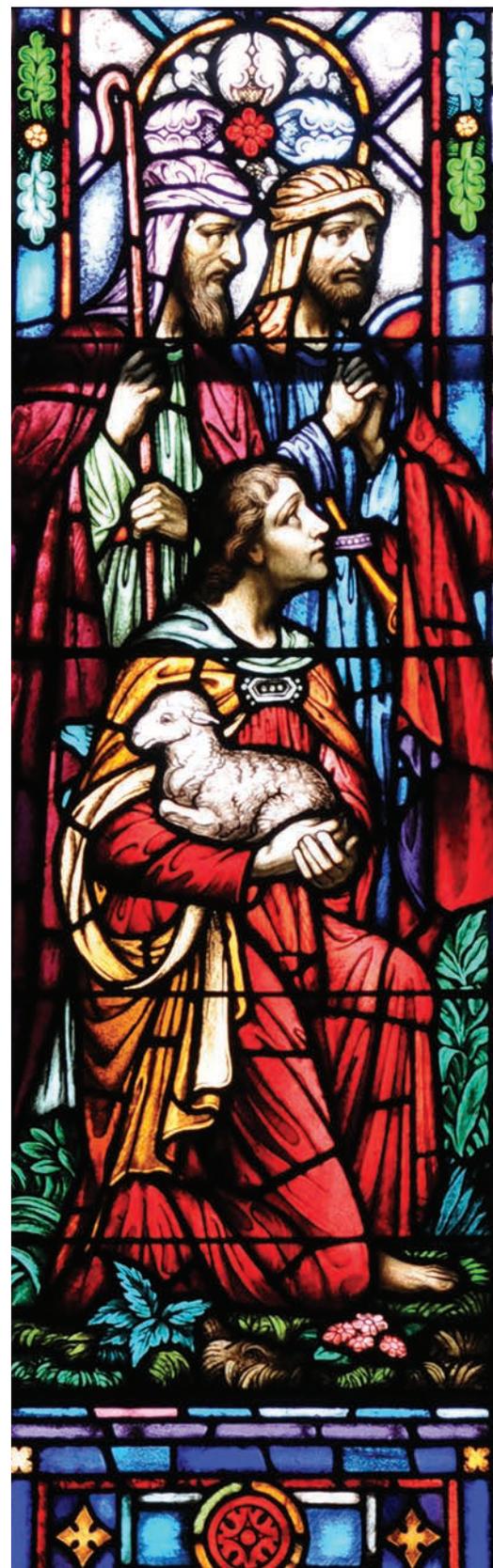
So he hopes this new program will give others the clarity they need.

"Today, a growing body of research and popular literature tells us that the vast majority of Americans want their work to amount to more than a paycheck," says Hagood.

"Engaging the themes of calling and vocation — understood broadly as not only matters of employment and career but also larger questions about meaning, purpose and the direction of one's life — will provide a richer church life for Christians, equip them for faithful lives at work and contribute to a greater sense of coherence in their lives."

Hagood notes that churches don't always have the resources to devote to creating and running such efforts. With this grant through Lilly Endowment's "Called to Lives of Meaning and Purpose Initiative," the college will offer a series of workshops and conferences to help churches develop programs that make sense for their individual congregations; provide funding to implement them; and extend opportunities to gather afterward with other participants and discuss what worked and what didn't.

The college's Center for Ministry Studies will coordinate the grant's "innovation hub." Organizers anticipate that 12 to 24 small teams — comprised of three to five people each — from local churches will participate over a three-year period. Churches interested in developing or reshaping more than one program will be able to participate more than once, to the benefit of all. 🌿 — *Eva Dean Folkert '83 and Greg Olgers '87*



THE POWER OF *IMMIGRANTS'* *PERSONAL* *NARRATIVES*

DEBORAH VAN DUINEN, PH.D.
ASSOCIATE PROFESSOR OF EDUCATION



*“Stories bind us together,
and they do it in ways
that news media can’t.”*

For Canadian-born Dr. Deborah Van Duinen, the topic of immigration hits close to home. She is especially attuned to the history and shifting demographics of Hope College’s hometown, Holland, Michigan.

“This is an immigrant town,” Van Duinen says. “I think sometimes we forget that.”

So when the opportunity arose to collaborate with an English professor to develop a pair of courses on that theme, Van Duinen’s curiosity was piqued. Stories of immigration are central to her research as an education scholar, and she is the program director for Holland’s Big Read, a community-wide reading program that in recent years has focused on the topics of immigration, identity and homeland.

“As an educator, I like to use fictional stories and memoirs as pedagogical tools to study narrative and language,” Van Duinen says. “I want my students to analyze the words and metaphors that we, and others, use when talking about immigrants, ‘the other,’ hospitality and borders, encouraging them to speak in ways that bring about communities of service, shalom and hope.”

She and Dr. Jesus Montaña, an associate professor of English who moved to the United States from Mexico when he was 3, teamed up on a project titled “The Power of Immigration and Acculturation Narratives to Cross Borders and Build Bridges.” They designed an English course and an education course focused on the topic. Each course will incorporate teaching modules with videos and narratives that tell stories of immigration and acculturation in the Holland area and at Hope.

“Our goal is not just for students to read stories and narratives,” Van Duinen says. “but also for them to learn about and experience how people in our community are crossing borders.”

The professors’ two courses will build on one another. They plan to speak in one another’s classes, and together they created a list of shared texts and researched local organizations, such as Lighthouse Immigrant Advocates, to partner with. A student could take Van Duinen’s course as a freshman and complete their college career in Montaña’s senior seminar, though taking both is not required.

Montaña’s course debuted during this spring semester. Van Duinen is on sabbatical during the 2017–18 school year; she is likely to begin teaching her Encounter with Cultures course in fall 2018 or spring 2019. Their course planning was supported by a Mellon Grand Challenges Initiative Grant, which helps Hope faculty develop linked courses across academic divisions.

“There are a lot of misconceptions about immigrants,” Van Duinen says. “We want to challenge our Hope community to think deeply about these issues rather to hear only sound bites. The idea is that these topics and discussions don’t stay within our classrooms — we’re learning about this within the larger context of our community.”

 — S.M.



Dance as a Learning Strategy

NICOLE FLINN, M.A. | ASSOCIATE PROFESSOR OF DANCE

Imagine a Kandinsky painting coming to life on stage, each impasto brushstroke a carefully choreographed movement. Picture a Warhol screenprint animated by dance, each plane of color made kinetic. What could young audiences learn from such dance performances?

The connection between movement and cognition drives Professor Nicki Flinn. It motivates her research, and it inspires her to serve as director of Hope's StrikeTime Dance Theatre.

StrikeTime creates productions that educate and engage young audiences — all through the joy and process of movement. This spring, the company will offer two productions: a touring assembly consisting of a “Magical Dancing Library” that uses books by Dr. Seuss, Maurice Sendak and other authors to unlock children’s curiosity and adventure; and a concert stage performance of dances based on visual art, including works by Warhol and van Gogh.

In her efforts to answer two main questions — *In what ways do students learn best? And how do students respond to interactive learning experiences combining arts and cognition?* — Flinn has created an action-based learning and brain-compatible resource to complement the productions. The resource, designed for teachers to use in

connection with the StrikeTime performances, emphasizes creative dance concepts and experiences.

StrikeTime performs roughly 30 shows a year at locations ranging from Hope’s Knickerbocker Theatre to schools and libraries throughout Michigan and nearby states. Flinn’s students not only contribute on stage as dancers and choreographers, but also experience the collaborative process of building a production from infancy to performance.

“We have everyone from dance education majors, to performance/choreographers, to classroom teachers, to Hope students that just love dance and theater,” says Flinn.

The educational goals of StrikeTime are far-reaching, as learning happens for the performers and the audience alike. “My goal for both the dancers [Hope students] and the viewers [children] is that they have the opportunity to create, perform, respond and connect to the material, as they participate in and observe the entire creative process,” Flinn states. “In doing so, they will experience a variety of learning outcomes, including physical, social and cognitive, which is vital as we continue to explore avenues to engage and enrich the lives of students through the arts.”

✍️ — C.L.

Helping Chinese Families Advocate for Children with Special Needs

DENNIS FEASTER, PH.D. | ASSISTANT PROFESSOR OF SOCIAL WORK

To understand how four Hope College students found themselves in China training teachers and social workers in summer 2017, you need to trace the story back to Benjamin Feaster's adoption. Thirteen years have passed since Dennis and Sarah Feaster adopted their son from his native Hong



Kong. Adopting and parenting Benjamin, who has Down syndrome, triggered a new professional interest for Dennis Feaster: how children affected by disability are viewed in mainland China.

Back then he was a social worker in Grand Rapids, not an academic — but he'd studied law and society in college. His thoughts turned to structural questions. *What if Benjamin were on the mainland — who would be taking care of him? What is the nature of orphan care in China? How do people in China and Hong Kong feel about intercountry adoption?*

One Ph.D. and many trips to China later, Dr. Feaster's focus as an international social worker is building and improving services in China for children affected by disabilities.

In graduate school, he discovered that more than 90 percent of children entering orphan care in mainland China had an intellectual or developmental disability — a statistic confirmed by the Chinese Ministry of Civil Affairs and the United Nations International Children's Fund (UNICEF). In response, Feaster worked with the Michigan-based agency Bethany Christian Services and two community-based organizations in China on a program to get more Chinese children with disabilities placed in family settings.

“Most of my work involves helping to build and improve local social services so that birth parents don't feel the desperation and lack of resources that may precede the decision that results in a birth child with a disability entering into orphan care,” he says.

Feaster includes some of his students in these ongoing efforts. In summer 2017, Kylie DeKryger '18, Abby Durán '18, Maria Garcia '18 and Gabbi Werner '18 joined Feaster in China as part of a project funded through the ASIANetwork Freeman Student-Faculty Fellows Program.

“All of the students are social work majors who also had some interest and experience in either disabilities or international social work, or both,” Feaster explains, and all four “were far enough along in their professional education to be able to provide substantive information to partners, as



classrooms are pretty thoroughly segregated from the general education population. This access is progress, but there are many, many steps that need to happen in order to accomplish more fully inclusive and appropriate educational experiences for these children and families.”

Compounding the challenge is the scarcity of social workers in China, at least as Americans understand the term. In China, Feaster explains, social workers’ main responsibilities are to implement social policies and controls. Special education teachers are scarce in China, too, as are teacher-training programs in the field.

“My partners have asked for assistance in upgrading their social work capacity, but they are now also asking for help in increasing special education capacity,” Feaster says.

“Finding students and professionals who can participate with Chinese partners in meeting these needs is part of the broader vision for this community. I hope that Hope College can be a big part of this.”

That Feaster is the father of children who have disabilities helps him build bridges with families he meets in China.

“As you can imagine, much of the interest from families has been quite practical: ‘My child does Behavior X — how do I get them to stop it?’ or ‘I want my child to be able to do Behavior Y — how do I get them to learn this?’” Feaster says. “The interest from organizations has been similarly practical: ‘How do we help families who have these questions/issues?’ and ‘How do we collect and analyze data from our programs to improve our services?’”

“I believe that this offers many advantages that we in the U.S. could benefit from,” Feaster says. “It is more relational than transactional.”

The ASIANetwork Freeman Student-Faculty Fellows Program has been supporting undergraduate research projects in East and Southeast Asia for nearly 20 years. The Freeman Foundation, which supports the initiative, has provided financial backing for years to colleges looking to expand their Asian studies programs.

Feaster hopes that connections between the college and Chinese disability advocates will continue to grow. “My hope is that I can connect Hope College students and faculty to my friends and colleagues in China,” he says, “so that over time and across iterations, the changes that my friends in China want to see actually come about.” ✍️ — G.C.

well as having the maturity and life skills needed to work across cultures.” They were paired with Chinese university students who served as translators.

Feaster and his students intersected with social service agencies in four Chinese cities: Beijing, Xian, Hong Kong and Zhengzhou. They spent the most time in Zhengzhou, where they trained families and professionals on issues such as program development and evaluation, child assessment, and intervention. Zhengzhou is unique in China for having social service agencies that serve the birth families of children with disabilities, Feaster says. In the other cities the group visited, agencies focus mostly on children with disabilities who are in orphan care.

Along the way, they learned of efforts by their Chinese colleagues in Zhengzhou to create opportunities for families to connect with one another and advocate for their children. “These families have been able to organize themselves and have petitioned the municipal government in Zhengzhou to allow their children to have access to public education,” Feaster says. “This is a process that occurred over three years but was eventually successful — Zhengzhou’s government set up a pilot program for schools to admit students with intellectual and developmental disabilities to have access to schools.”

Achieving that access was challenging because most Chinese schools have no special education programs. Feaster says that parents are stepping in to attend school with their children and help teachers to adapt lessons to the kids’ learning needs. “At this point,” Feaster reports, “it sounds like most of the schools have a designated special education classroom with an assigned teacher, but these

Creating New Neural Pathways to Relieve Phantom Pain

KATHARINE POLASEK, PH.D. | ASSOCIATE PROFESSOR OF ENGINEERING

Dr. Katharine Polasek's mission is to improve the daily experiences of people who have undergone amputations by focusing on a very specific — and very perplexing — challenge: phantom limb pain.

Individuals with phantom limb pain sense pain in the limb that was amputated, as though it were still there. Researchers aren't yet certain of the cause. To treat this phenomenon and assist the roughly 425,000 patients it affects in the United States (and others elsewhere), Polasek has been developing a variety of novel techniques since 2010, when she started teaching at Hope.

Interested in creating alternatives to medication, Polasek was inspired by mirror and virtual reality therapy. These visual treatments allow patients to perceive their limbs as if they were still intact, so that they can virtually "move" their phantoms to different positions that might decrease the pain they are experiencing. This method, however, doesn't reduce everyone's pain, so Polasek is seeking other options.

Assisted by Hope engineering students, Polasek has developed a new, non-invasive therapy to decrease phantom limb pain. To determine its implications, Polasek and her students are preparing to test the therapy on subjects with amputations.

"We are applying small electrical currents to the nerves in people's arms or legs to make it feel like someone is tapping on their missing limbs," Polasek explains. "We then have them watch as a robot taps on their prosthesis — as the currents continue to be applied to their nerves."

As a result, people feel as though the prosthesis is actually their own arm or leg. The therapy, which promotes rewiring of the nervous system, can be conducted every week, resulting in pain relief that is potentially long-lasting.

Polasek and her team are focusing on long-term testing of their phantom limb pain therapy. "The long-term challenge is not just developing something that works, but is also simple enough that people will use it at home."

Polasek and her students are driven by a shared passion for helping people live life to the fullest. Several of her student research assistants, including Julia Slopsema '15 and Johanna Forst '13, have gone on to pursue careers in neural engineering. Slopsema, a National Science Foundation fellowship winner, is enrolled in the University of Minnesota's biomedical engineering grad program, and Forst — one of Polasek's first research assistants for the new therapy — is now a market development manager at Medtronic.  — C.L.



JOIN THE CONVERSATION

A sampling of Spring 2018 presentations and performances by Hope College faculty and students

- Now–May 19** *CULTURE, COMMERCE AND CRITICISM*
Kruizenga Art Museum
With content and presentation developed in collaboration with Dr. Anne Heath and her Art 361 seminar, an exhibition of 50 prints exploring how Western artists have used them to transmit knowledge, generate income and critique current events
- February 22** *CONTINUUM LECTURE*
Dr. Matthew Smith | Assistant Professor of Engineering
Intersections of vocation, faith and scholarship in engineering
- March 26** *THE FRENCH CONNECTION*
Dr. Mihai Craioveanu | Professor of Music
With guest musicians, the violinist presents a concert of French music from classical to alternative styles
- March 28** *HISTORY COLLOQUIUM*
Dr. Chad Carlson | Associate Professor of Kinesiology
Why March Madness matters
- March 29** *CONTINUUM LECTURE*
Dr. Andrew Gall | Assistant Professor of Psychology
Sleep and circadian rhythms

These research symposia will showcase scholarly work by students:

- March 30** *DEPARTMENT OF MODERN AND CLASSICAL LANGUAGES*
- April 4** *SOCIOLOGY AND SOCIAL WORK*
- April 11** *ARTS AND HUMANITIES*
- April 13** *CELEBRATION OF UNDERGRADUATE RESEARCH AND CREATIVE PERFORMANCE*

Visit calendar.hope.edu for times, locations and details of these and other presentations by Hope College scholars.

CRAFTING A THEOLOGY OF DISABILITY

JARED ORTIZ, PH.D. | ASSISTANT PROFESSOR OF RELIGION

When his 7-year-old son Benedict was diagnosed with autism at the age of 3, it set Dr. Jared Ortiz on a personal, impassioned research track.

“I did a lot of reading, and there are wonderful resources in the Holland area, so we’ve been very blessed,” Ortiz says regarding his son’s condition. “What I found in the readings is that there’s a lot of practical advice for working with children with autism, but there’s not a lot of good theological perspective on it.”

What he did find proved “very frustrating” because even renowned theologians tend to rely on secular categories for disability, Ortiz says — which he finds problematic from a Christian point of view.

“In much of the literature, there is an unwillingness to say what disability is, or even to say that one might be sad about it, or might suffer from it,” Ortiz says.

Inspired by the Mellon Grand Challenges Initiative at Hope, which encourages multi-disciplinary course development focused on key contemporary themes, Ortiz aligned with three other Hope professors to address the topic of disability from their respective disciplines. He and the other faculty members — historian Dr. Wayne Tan, psychologist Dr. Alyssa Cheadle and social work professor Dr. Dennis Feaster — taught their new courses for the first time in the fall 2017 semester, sharing syllabi and guest lecturing in each other’s classes.

Ortiz took an inventive approach to final preparations. He organized a six-week summer lunchtime reading series open to all Hope faculty and staff.

“I picked readings under 20 pages that dealt with theology and disability, and just blasted the whole campus: ‘This is what we’re reading, please come,’” says Ortiz. “I had no idea

if anybody would show up, but we had 10 to 20 people each time. I was surprised by who was interested. Many came because they had a personal connection to disability — a sister with cerebral palsy or an aunt with Down syndrome.”

“I told them, ‘This is not for experts. I’m not an expert in this field either, I’m just learning.’ And it was great.”

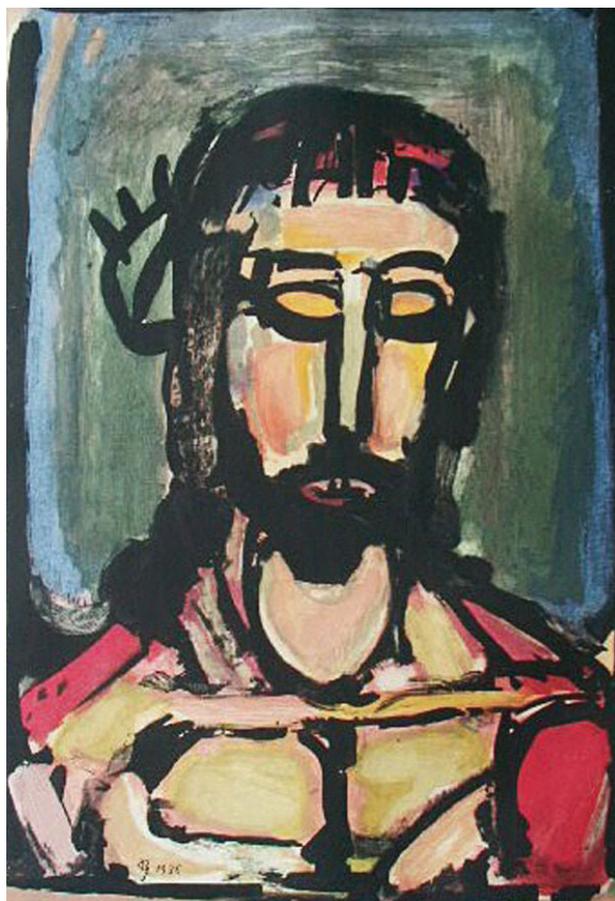
His takeaway? “There is clearly a felt need to explore how to think about disability in a Christian way. But I also saw a tension between theologians who were willing to say that disability is a result of living in a fallen world and those who wanted to avoid that conclusion altogether. More work needs to be done both to understand and to share a robust Christian understanding of disability.”

In March, Ortiz will synthesize

his readings on disability in a talk for a by-invitation-only colloquium at the ecumenical Chicago Theological Society.

✍ — J.M.

Visit hope.edu/ortizbooklist to view Dr. Ortiz’s summer reading list.



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A New View in Japan

WEI YU WAYNE TAN, PH.D.
ASSISTANT PROFESSOR OF HISTORY

It's an unusual question for a historian: *What is it like for a blind person to live in a world dominated by sighted people?* But this inquiry, with a particular focus on Japan, is at the heart of Dr. Wayne Tan's research.

Today, Japan is considered one of the most blind-friendly nations in the world, providing aids like braille signs and audio signals in public spaces. To get to this point, Japan experienced many social and cultural shifts — and Tan has been studying those shifts since his days at Harvard University.

In his doctoral dissertation at Harvard, Tan explored how blind people were viewed in Japan from the 17th century through the mid-19th century. Now, he is expanding his study as he writes a book, tentatively titled *Blindness as Disability in Japan*, which extends the timeline into the modern era. Conducting research for the book, Tan pored over medical and scientific reports about disability, as well as personal memoirs, education policies, village registers, records of temples and shrines, and the digital collections of the National Diet Library, Japan's national library.

Tan points out that in early Japanese society there were groups of blind traveling musicians who played a stringed instrument known as the *biwa*. The genres these musicians performed were of a literary, lyrical, and, sometimes, religious nature. “Blind people were, in fact, employed in a number of specialized professions and belonged to institutions unlike any seen in Western countries,” Tan says.

But with the emergence of the modern Japanese state in the late 19th century, blind communities came under new forms of state control and were forced onto the margins of society. In the 20th century, Western influence changed again how those dealing with blindness were viewed.

“The dominant narrative tells us that Japan caught up with the rest of the world by importing and adapting ideas from Western nations, and would go further to suggest that the levels of provision for blind and disabled populations were the outcome of modernity,” Tan says. “Yet, what I hope to highlight through my case studies is that disability did not go away, but reemerged in more recognizable terms, actually, because of the Western models that guided Japan's modernizing process.”

“Disability,” says Tan, “is a culturally subjective experience.” 🗍 — G.C.

CULTURALLY DISLOCATED?

For Some,
Changing the Channel Helps

MARISSA DOSHI, PH.D.
ASSISTANT PROFESSOR OF COMMUNICATION



Is Dr. Rajesh Koothrappali, the winsome astrophysicist played by Kunal Nayyar on the long-running CBS sitcom *The Big Bang Theory*, responsible for the alienation many Indian-Americans experience from mainstream U.S. media?

That may be overstating matters a bit — but according to recent research by Dr. Marissa Doshi and a colleague, “Raj” is one of the most prominent contemporary examples of the disconnect that first-generation Indian-Americans may feel in their adopted country.

“It has to do, I think, with how mainstream media in general portrays ethnic minorities, including Indian-Americans, in very limiting and stereotypical ways,” asserts Doshi, who earned her undergraduate degree in Mumbai, India. “For

example, it’s 2018 and *Big Bang Theory* still has a character like Raj, who has a very stereotypical accent. It’s not very different from how *The Simpsons* portrayed Apu [the Indian-American proprietor of the animated series’ Kwik-E-Mart], and *The Simpsons* came out almost 20 years before.”

With Dr. Srividya Ramasubramanian, an associate professor of communication at Texas A&M who was Doshi’s mentor during her graduate studies there, Doshi surveyed more than 250 Indian-Americans about issues including the media choices they make. In 2017, Ramasubramanian and Doshi reported on their research in the *Journal of International and Intercultural Communication*, and also (along with Dr. Muniba Saleem of the University of Michigan) in the *International Journal of Communication*.

Their survey findings suggest that Indian-Americans are motivated to watch movies and television programs from their home country not because they have difficulty with English, as had widely been assumed, but because they are engaging in “ethnic performance”: organizations, activities and entertainment that focus on Indian culture.

“It’s a complex relationship they have with media from their homeland in India,” Doshi says. “We found that watching Indian media is related to increased ethnic pride. Watching it may actually make them feel good about their ethnic identity in a way watching American TV does not.”

She is quick to note that Indian-American actors like Aziz Ansari (*Master of None*) and Mindy Kaling (*The Mindy Project*) are featured prominently in American media. However, the number of Indian-American performers is minuscule even compared to other ethnic groups. What’s more, such actors are typically not seen in roles designed to promote or celebrate Indian culture.

“I don’t think the list is short because there aren’t Indian people interested in acting,” she notes. “I think it speaks to the lack of opportunities for actors of color. In Hollywood right now, or in American media, it almost seems like if you want to have your voice heard, you have to be in charge of the production. If you don’t take that opportunity, no one’s out there giving it to you.”

Research for Ramasubramanian and Doshi’s study was centered in Texas. They recruited subjects from groups with high numbers of Indian-American members, such as student organizations and cultural societies. Those who responded were asked to forward surveys to friends. More than 300 people participated, and the researchers found 255 surveys were complete and usable.

The Indian films and TV series that the respondents said they seek out through satellite programming, cable packages and other means go beyond the “Bollywood” phenomenon America first became aware of in the 1970s.

“For a while, Bollywood actually tried to appeal very specifically to Indian-Americans,” says Doshi. “They felt this was a huge audience for them because these were people who missed India, so a lot of their movies targeted Indian-Americans in terms of their storylines. They definitely presented the Indian-American — in India we call it the NRI, or Non Resident Indian, identity — as desirable, aspirational, something to be celebrated.”

Opting for indigenous programming that celebrates their homeland has its pitfalls, though. One of Doshi’s previous research studies (with Dr. Indira Somani of Howard University) found that many Indian-Americans, particularly older viewers, have mixed reactions to India’s extremely popular nighttime serialized dramas.

“They’re like telenovelas, with the most over-the-top storylines — but everyone in India watches them,” Doshi explains. “We found that older Indian-Americans enjoyed the shows, but they also were uncomfortable watching how Indian women were being portrayed. In a lot of ways, the actors were not following the norms of what ‘a dutiful Indian woman’ is supposed to be or do. So the reason they were watching — to recapture that sense of home — was actually being disrupted. It reminded them of how much India has changed since they left. These people don’t truly feel at home in the U.S., and these shows were a reminder that, ‘Hey, you don’t belong back here, either.’ As an older person, you may feel alienated from this ‘new’ India.”

In 2017 Doshi became Hope College’s 20th Towsley Research Scholar; she is receiving summer research funding for four years, plus a semester-long sabbatical to pursue scholarly work. Her term as a Towsley Research Scholar runs through 2021.

Doshi believes research like hers eventually will help expand the media landscape for all marginalized groups. “I’ve been really looking at how marginalized groups engage with media and technology,” she explains. “I’ve looked at Indian-Americans in some of my published research, and recently I’ve been focusing more on women. I’m looking at how those groups sometimes engage with media to make their voices heard, but also how there is a creative and cultural dimension of media use that’s not always taken seriously.”

One reason she became a professor, she says, is because she wants to talk about her research with students and engage them in it. Four students have been involved in her feminist technology research, assisting with a 2016 study of women’s health apps and a 2017 project on gender norms on Instagram. “They are the future; they are the ones who are going to be making all this media eventually,” Doshi says. “That’s where I think I see my research having the largest impact.” 🍌 — J.M.

POST-WWI CAMPAIGN BROUGHT AMERICA'S DIVERSITY INTO FOCUS

JEANNE PETIT, PH.D. | PROFESSOR OF HISTORY

The year was 1918. The United States was in the midst of World War I.

Like today, the country was going through a great deal of change, particularly in how people expressed their faith. The war triggered a wave of immigration to the U.S., bringing Catholics — and to a lesser extent, Jews — to a nation in which Protestants were the dominant religious group.

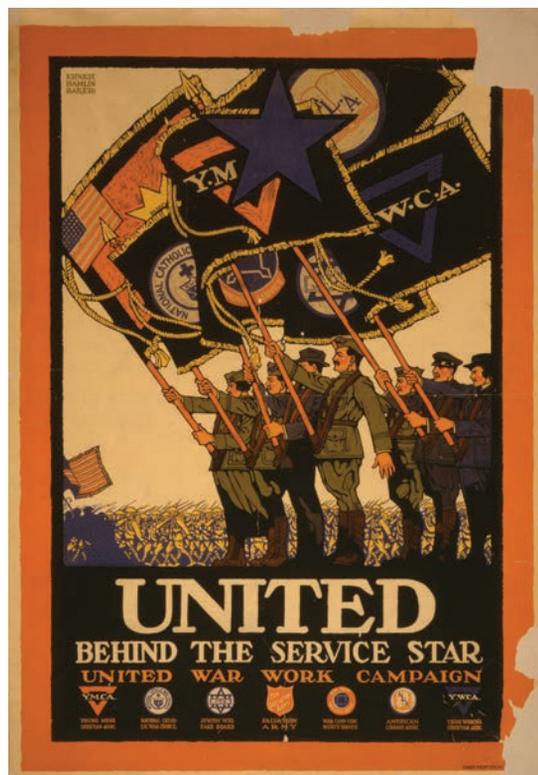
“There was a lot of tension between Protestants, Catholics and Jews,” says Dr. Jeanne Petit, who in 2017 wrote an article on one of the first interfaith fundraising campaigns in U.S. history — the United War Work Campaign.

Seven non-governmental organizations, most faith-based, took part in this campaign coordinated by the U.S. War Department. They included the Catholic fraternal organization the Knights of Columbus, the Jewish Welfare Board and three Protestant groups: the YMCA, YWCA and Salvation Army. Over several years, Petit and her student research assistants pulled information from a variety of sources to explore the conflicts between the various organizations.

“You see the YMCA getting annoyed with the Knights of Columbus and vice versa — the Knights of Columbus thinks the YMCA is trying to convert all the Catholic soldiers,” Petit says. “You get multiple points of view of what’s happening.”

The United War Work Campaign’s goal was to raise \$170 million to provide entertainment for U.S. troops. Plan A was for each group to pursue its own fundraising effort, Petit explains, but the Secretary of War, concerned about potential backlash from so many separate campaigns, insisted that they work together.

The campaign launch date was Nov. 11, 1918. Ironically, on that day the armistice was signed in Paris to end the war. However, the United War Work Campaign proceeded as scheduled, since U.S. troops wouldn’t return home until the following year. It exceeded its goal, raising more than \$200 million.



United behind the service star, United War Work Campaign / Ernest Hamlin Baker; Carey Print Lith., N.Y.

Petit notes that valuable lessons came out of the campaign. “Protestants couldn’t just rule the roost anymore,” she says. “Other religious groups had to be taken into consideration.” Nearly 25 years later, some of the same organizations teamed up to support troops during World War II, leading to the creation of the United Service Organizations, or USO, which continues to entertain soldiers.

Several grants have supported Petit’s research, including a Great Lakes Colleges Association grant that enabled four of her Hope College students to conduct research on the United War Work campaign at the Library of Congress in summer 2015. They used the information to create a website.

In 2016, she engaged with another group of student researchers who built a website about the city of Holland’s involvement in World War I. Petit doesn’t expect that such websites will replace books and papers, but she sees great value in them. “It brings it alive in new ways, rather than just being published for historians to read,” she says.

✍️ — G.C.

Visit unitedwarwork.com to view Dr. Petit’s students’ website.

FAITH AND THE BENCH

DAVID RYDEN, PH.D.

PETER C. AND EMAJEAN COOK PROFESSOR OF POLITICAL SCIENCE

In September 2017, the Senate Judiciary Committee questioned Amy Barrett, a federal appellate-court nominee, about whether her Catholic faith would influence her decision-making as a judge and perhaps disqualify her from a seat on the federal bench. From his office in Lubbers Hall, Dr. David Ryden was paying close attention.

Ryden has been studying the impact of religious conviction in relation to the state, as well as ways in which judges contemplate certain issues. Prompting his research was a shift in the United States Supreme Court's makeup; for nearly 200 years, it was composed overwhelmingly of Protestants, but over recent decades it evolved into a court made up exclusively of Jewish and Catholic justices.

To better determine the effect of religious conviction on judicial behavior, Ryden is focused on a few key questions:

Do judges' religious commitments shape their judicial philosophies and practices? How do religious convictions play out in judicial behavior — do judges explicitly invoke their religious beliefs as they reach judicial results, or is the effect indirect? Under which circumstances do religious viewpoints appear to be relevant? And, finally, what are the implications of judges' religious backgrounds for the purposes of judicial selection?

Largely a qualitative research project, Ryden's work involves biographical research on judges, including their religious affiliations and convictions, as well as a textual analysis of their opinions in cases in which religious views might be relevant to outcomes. Once this research is conducted, Ryden will connect the dots between the biographical research and the textual analysis.

Gabrielle Barber '18, a political science major with a pre-law focus, has assisted Ryden with his research. "Gabby was instrumental in conducting an exhaustive literature review, plumbing law reviews and journals to see what has been done on this topic," Ryden explains. "She also provided an excellent summary of the existing literature to assist me in assessing what it says." Barber will produce her own independent analysis.

Ryden's research is timely given President Trump's 2017 appointment of Justice Neil Gorsuch, the Supreme Court's lone Protestant. He replaced the late Antonin Scalia, a Catholic. Gorsuch is known for his vigorous defense of religious liberty and his textualist approach to constitutional practice, as he leans more heavily on actual constitutional language.

"As we continue to look for points of intersection between judges' religiosity and their judging, judges in the mold of Gorsuch and Barrett will be important figures to keep an eye on," Ryden says.

At this point, his findings are preliminary. However, he's already noticed connections between religious views and judicial behavior.

"We've just scratched the surface of this topic, though," he adds. "I can't wait to see what we discover next." ✍️ — C.L.



COLLEGE ACCESS AS A HEALTH POLICY ISSUE

TEMPLE SMITH, PH.D. | ASSISTANT PROFESSOR OF SOCIOLOGY

If college attendance can lead to better health, is access to higher education a healthcare policy issue?

That question is at the heart of research that Dr. Temple Smith began in 2017. Drawing from a federal study on adolescent health, she is investigating what influences college students' physical and mental health, compared to young adults who are not in college.

"The data shows that college students report better physical and mental health than other young adult populations," Smith says. "At what point does that happen? What resources are contributing to these findings?"

The National Longitudinal Study of Adolescent to Adult Health surveyed 19,600 college students as they started their first year and is periodically re-surveying the same individuals as they proceed toward middle age. Its findings highlight that college students report higher levels of social support and a greater sense of control over their lives and health. Another finding: Higher educational levels correlate to behaviors that have a direct positive

impact on health. There's a stark contrast between the physical and mental health of young adults who attend college and those who don't, and the gap widens over time.

"We find it's the resources on campus that create both the ease and access to maintain health," Smith says. Health centers and nutritious food are key, but so are other aspects of campus life. For instance, some study participants reported that their campuses' "built environments" supported physical activity and seemed safer than their home neighborhoods — factors that boost outdoor exercise. "Safety, social support, health, well-being are built in," Smith says.

This research is one strand of Smith's focus on the lasting impact of childhood poverty. As was documented by the American Council on Education's 2015 analysis of U.S. census data, a significantly lower percentage of low-income high school graduates enroll in college, compared to those whose families are more affluent. What's more, there is a downward trend — the percentage dropped from 56 to 45 percent between 2008 and 2013.

"Childhood experiences shape aspirations and opportunity structures," she says. "I'm looking at the full gamut of poverty and education and asking, *What is the pathway out? How are we engaging or mediating at-risk populations?*"

To explore these questions with students, Smith and two Hope College colleagues have designed interdisciplinary courses exploring issues around poverty and homelessness. This spring, all 70 students in those courses are involved with a Grand Rapids homeless shelter. Professor Tori Pelz's art students lead classes there, and Dr. Deb Sturtevant's social work students are examining policy and operational issues. Smith's Sociology 101 students are considering how sociological theory interacts with what she frames as the conventional understanding about poverty: "that people are poor because they don't work hard, or do not have sufficient agency to prepare themselves for success." She disagrees. "Someone's starting point will largely define how tumultuous their trajectory will be," she says. "Depending on your starting point or social location, you not only need agency, but super agency and resilience, to transcend poverty." 🍌 — A.S.



Kuyper, the Popes — and an Economist

SARAH ESTELLE, PH.D.
ASSOCIATE PROFESSOR OF ECONOMICS
AND RUCH FACULTY FELLOW

Where economics, morality and political theory intersect, you'll find Dr. Sarah Estelle.

Intrigued by this trio of issues, Estelle recently began to concentrate on economic theory, theological principles and the role of the state, with a focus on the late Nobel Prize-winning Austrian economist Friedrich Hayek.

Hayek, who was skeptical of socialism and central planning, considered knowledge to be local in nature and particular to a certain time and place. If knowledge is local, as Hayek believed, does it follow that decision-making and government should be largely local, too?

In 2017, with this question in mind, Estelle recruited three students to help her scrutinize work by Hayek and several Christian thinkers. Their goal: to assess whether the individuals would see eye-to-eye on this issue, and whether Hayek's observation about knowledge is consistent with the principles of orthodox Christianity.

Estelle's research assistants were economics and mathematics double major Brandon Fuller '19, who became the team's Hayek expert; political science major Alissa Frazee '18, who studied Reformed theologian and Dutch politician Abraham Kuyper; and theatre major Anna Jones '18, whose grounding in Catholic social teaching paid off as she read a variety of papal documents.

"My student collaborators have been an enormous help in

starting this project with full steam," says Estelle, who is incorporating their research into an article she is writing.

For 10 weeks in summer 2017, the group worked in Van Zoeren Hall, pinpointing commonalities and conflicts between the perspectives they researched. They learned that the thinkers had very different starting points, but reached similar conclusions. Hayek's foundational principle was related to the distribution of knowledge among individuals, while Kuyper built upon the idea that God has granted — by His ultimate authority — different authorities to various individuals. The Catholic theologians, on the other hand, focused on natural law and the purpose of humans.

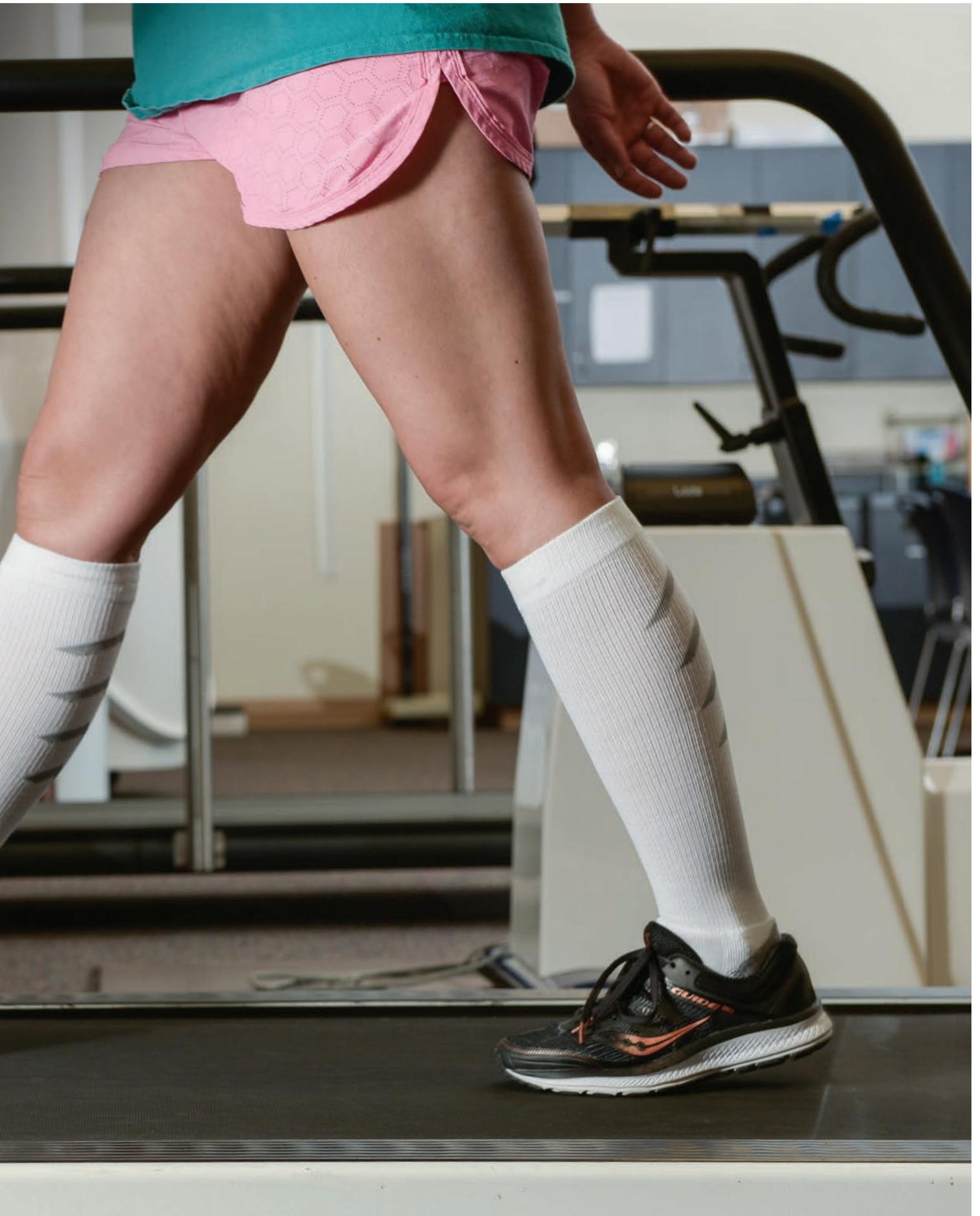
"While their premises differed, especially between the agnostic Hayek and the two theological principles we explored, the implications of their observations of the created reality had similar inferences — namely, that decision-making authority should be localized within families, smaller communities and other institutions by default," Estelle says. "All lead one to the conclusion that the state must be limited in its scope in order for civilization to function well."

The summer research was supported by the same grant that covers the expenses of Hope's Markets & Morality group in which students explore economic issues through a Christian lens. Estelle is the group's advisor. ✍️ — C.L.

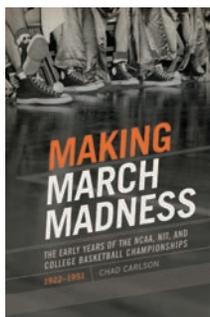
A close-up, low-angle shot of a person's legs on a treadmill. The person is wearing white socks and black athletic shoes with orange accents. The treadmill is black and has a handrail. In the background, there is a laboratory setting with various pieces of equipment, including a white cylindrical object on a shelf and some cables. The lighting is soft and focused on the person's legs.

FUTURE OF FITNESS

More gain, less pain — in America's fitness-focused society, that's something everybody can get behind. In summer 2017, Dr. Brian Rider of the Department of Kinesiology tested the effects of wearing compression stockings during exercise. Working with student collaborators, he recruited 10 volunteers between the ages of 18 and 39 to work out on treadmills in the exercise physiology lab in DeVos Fieldhouse — sometimes wearing conventional socks, sometimes in compression socks. Technical tests found no evidence that compression socks had any impact on participants' heart rates or blood lactate levels, but in surveys that the volunteers completed 24 and 48 hours after exercising, they reported less soreness after workouts in compression socks. Rider's conclusion: Whether they provide physical benefits or simply increase people's feeling of stability while exercising, compression socks appear to be a plus. This research funded by a Nyenhuis Grant followed up on Rider's 2014 article in *The Journal of Strength and Conditioning Research* and is part of his long-term focus on finding out what can make exercise more comfortable and enjoyable. In another study, he documented that watching TV while exercising increases enjoyment, too.

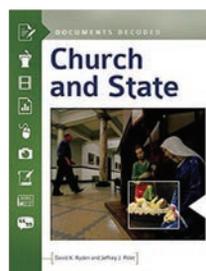


2017 FACULTY BOOKS



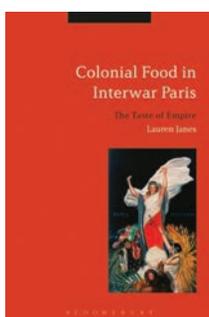
CHAD CARLSON, PH.D.
ASSOCIATE PROFESSOR
OF KINESIOLOGY
*Making March Madness:
The Early Years of the NCAA,
NIT and College Basketball
Championships, 1922-1951*
University of Arkansas Press

Long before it became a national phenomenon, the NCAA Men's Basketball Tournament — commonly dubbed “March Madness” — had its humble beginnings in modestly populated Midwestern gymnasiums to little fanfare and hype. It's this early history that Dr. Chad Carlson recounts in his new book, which was published as part of University Arkansas Press' Sports and Society series. Carlson — a former Hope basketball player and now the college's men's junior varsity coach — weaves first a regional tale, then a national story, about a competition that went from baby steps to giant leaps.



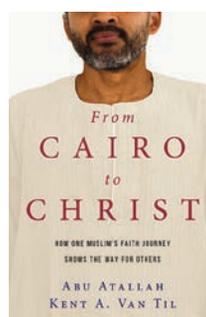
JEFFREY J. POLET, PH.D.
PROFESSOR OF POLITICAL SCIENCE
DAVID K. RYDEN, PH.D.
PROFESSOR OF POLITICAL SCIENCE
*Church and State:
Documents Decoded*
ABC-CLIO

How did the language regarding “separation of church and state” come about, when this phrase does not appear anywhere in the U.S. Constitution? Dr. Jeffrey J. Polet and Dr. David K. Ryden address this question, and many others, as they trace the history of myths and facts about church-state relations in the United States, from colonial times to the present day. This collection of annotated documents and court cases sheds light on how interpretation of the U.S. Constitution affects a wide range of issues, including the safeguarding of individuals' rights to religious expression and the use of public funds for faith-based schools and hospitals.



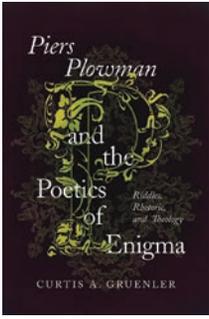
LAUREN JANES, PH.D.
ASSOCIATE PROFESSOR
OF HISTORY
*Colonial Food in Interwar Paris:
The Taste of Empire*
Bloomsbury Publishing

In 2017, Bloomsbury Publishing issued the paperback version of this book, which challenges the claim that empire was central to modern French identity. As post-World War I France suffered severe food shortages, colonial food was positioned as a powerful symbol, representing the significance of the colonial project to the French empire. Dr. Lauren Janes argues that distrust of colonial food, from Indochinese rice to tropical fruit, reflected French society's disinterest in the empire. Included in the book is an analysis of the role of food in contemporary debates about the place of Muslims in France today.



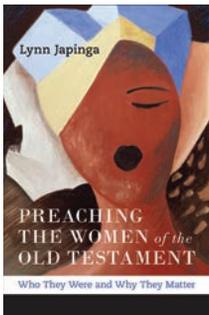
KENT A. VAN TIL, PH.D.
LECTURER OF RELIGION
From Cairo to Christ
InterVarsity Press

“If I were to become a Christian, it would mean not only changing my religion but changing my whole identity and bringing shame upon my family. My whole family is Muslim, and my society and culture were Muslim. . . . Changing from Islam to Christianity would mess up my life forever.” So writes Abu Atallah, who grew up in Cairo as an Egyptian Muslim. As he came of age, he began to encounter people who followed a different way, who called themselves Christians. Dr. Kent A. Van Til tells the story of how one Muslim man was drawn to the Christian faith, and how he later became active in Christian ministry in the Muslim world.



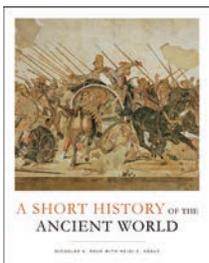
CURTIS GRUENLER, PH.D.
PROFESSOR OF ENGLISH
Piers Plowman and the Poetics of Enigma: Riddles, Rhetoric and Theology
University of Notre Dame Press

Dr. Curtis Gruenler proposes that the concept of the enigmatic can help readers better understand many medieval literary works, including William Langland’s “Piers Plowman,” a 7,000-line allegorical poem that explores biblical themes. According to a *Times Literary Supplement* review, “Gruenler’s learned and wide-reaching study is poised to transform future readings not only of Piers Plowman, but of many other works of medieval literature. The framework he advances for identifying the poetics of enigma at work in Piers Plowman admirably addresses the way that the poem both defies and invites interpretation.”



LYNN JAPINGA, PH.D.
PROFESSOR OF RELIGION
Preaching the Women of the Old Testament: Who They Were and Why They Matter
Westminster John Knox Press

More than 40 biblical women are featured in this book, which Dr. Lynn Japinga designed as a resource for pastors who want to know more about the women of the Old Testament and how to better incorporate them into their sermons. Each of the women receives a chapter, which begins by sharing where in the Bible her story is found and then whether or not it’s included in the lectionary that provides a guide for readings to use in preaching. Japinga presents a synopsis of each woman’s story, reflects on previous commentary about it, and concludes by suggesting possible sermon themes.



HEIDI E. KRAUS, PH.D.
ASSISTANT PROFESSOR OF ART
AND ART HISTORY
A Short History of the Ancient World
University of Toronto Press

Coauthored with Dr. Nicholas Rauh of Purdue University, this college-level book traces the emergence of urban civilizations in Africa, Asia and Europe from ancient times through the fall of the Roman Empire. With a broad-based social historical approach, Dr. Heidi E. Kraus and Rauh examine the unique social, cultural, religious, economic and political characteristics of each civilization, and explore the connections between societies in the Roman Mediterranean, East Africa, India and China. The volume concludes by reflecting on patterns common to the civilizations during both their existence and their collapse.



JAMES HERRICK, PH.D.
GUY VANDERJAGT PROFESSOR
OF COMMUNICATION
Visions of Technological Transcendence: Human Enhancement and the Rhetoric of the Future
Parlor Press

Central to this book is transhumanism — the idea that mental and physical enhancements through biotechnology and computer science will, and should, lead to improved human lives and even a post-human species. According to Dr. James Herrick, it’s a world that will see direct human-computer interface, genetic splicing and engineering, and sophisticated artificial intelligence — and it’s not far away. While skeptical about transhumanism’s goals, Herrick creates a holistic overview that shares different perspectives, with chapters that explore narratives of progress, technological immortality, and space colonization as human destiny.

Also in 2017, Routledge published the sixth edition of Herrick’s *The History and Theory of Rhetoric: An Introduction*. This college-level book, which traces the traditional progression of rhetoric from the Greek Sophists to contemporary theorists, offers a conceptual framework for evaluating and practicing persuasive writing and speaking in a wide range of settings. The sixth edition includes greater attention to non-Western studies, as well as contemporary developments such as the rhetoric of science, feminist rhetoric, the rhetoric of display and comparative rhetoric.

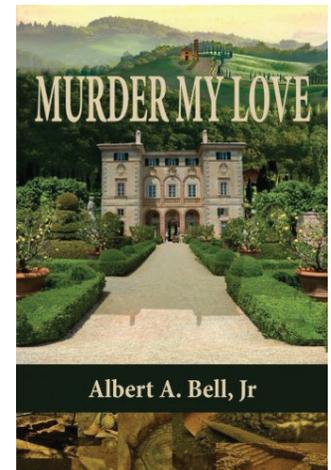
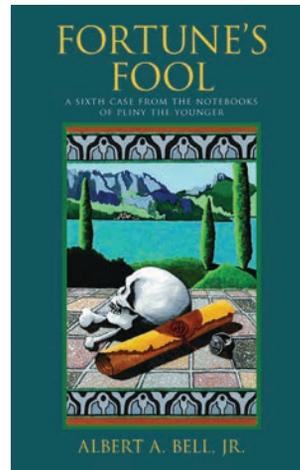
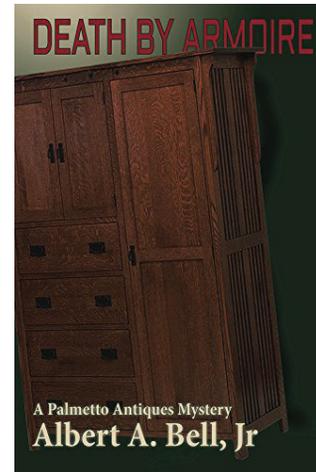
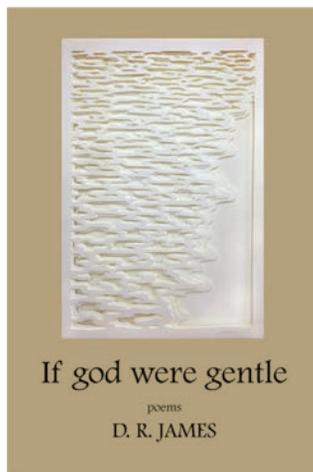
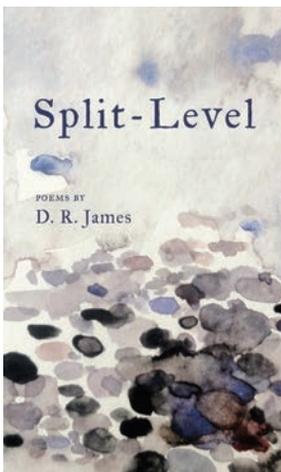
DAVID JAMES, M.F.A.

ADJUNCT ASSOCIATE PROFESSOR OF ENGLISH

David James turns life into poetry. In *Split Level*, a chapbook of his poetry published in early 2017, James (who writes as D. R. James) chronicles life from boyhood to middle age. Eighteen poems take the reader from James' childhood in a growing suburb west of Chicago during the Kennedy era, to pride and wistful recollection as the parent of grown children and the son of an aging parent, to thoughts on teaching, faith and the effects of getting older. All of the poems in *Split Level* were previously published in a variety of journals.

James' second full-length poetry collection, *If god were gentle* (Dos Madres Press), was also published in 2017. It features poems that explore the bittersweet experience of life viewed from middle age. Of this book, Hope professor emeritus of English Jack Ridl writes: "Never considering turning away, or back, James's narrator trudges through one circle of soul-destructive experience after another. If you want your poems to save you, that ain't gonna happen here. If you want lemonade out of lemons, you'll end up with the bitterest of bitters. If you want 'It was worth it in the end' you'll be left with a question. What you will discover here, however, is a strangely comforting form of optimism, assuring that you really can just keep going on."

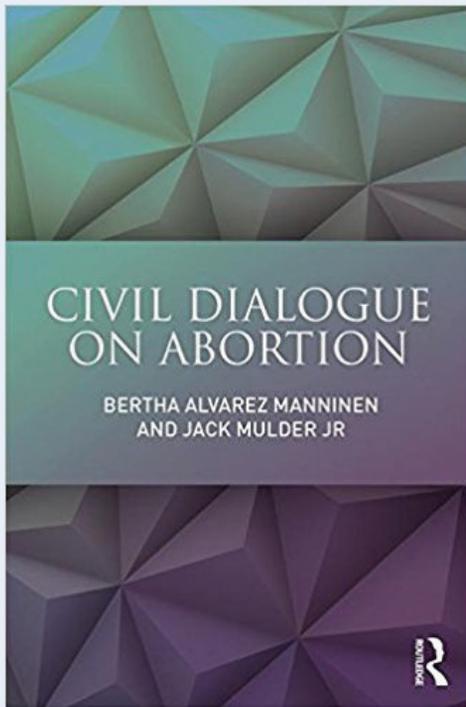
In addition to teaching writing and literature, James is the coordinator of academic coaching with Hope's Academic Success Center.



ALBERT BELL JR., PH.D.
PROFESSOR OF HISTORY

When he's not in the classroom, you might find Dr. Albert Bell Jr. putting the final touches on yet another novel. A prolific writer of fiction, the history professor published three mysteries in 2017 alone: *Fortune's Fool: A Sixth Case from the Notebooks of Pliny the Younger*; *Murder My Love*; and *Death by Armoire: A Palmetto Antiques Mystery*. *Fortune's Fool* is the latest in Bell's "Cases from the Notebooks of Pliny the Younger" series, a set of six historical mysteries that take place in ancient Rome. It's a setting that Bell knows well, thanks to years of scholarship in Roman history. Bell's approach to writing is simple: He writes books that he would enjoy reading himself.

COMING IN 2018



FINDING A WAY TO BE CIVIL ABOUT THE ABORTION DIALOGUE

Dr. Jack Mulder's recent book is a brave and balanced foray into one of society's most divisive debates. *Civil Dialogue on Abortion*, scheduled for March 2018 release by Routledge, provides an engaging discussion between two philosophy scholars — one on each side of the abortion issue.

Mulder argues for his pro-life view but recognizes that for the pro-life movement to be consistent, it must urge society to care more for the vulnerable. Coauthor Dr. Bertha Alvarez Manninen, an associate professor of philosophy in Arizona State University's New College of Interdisciplinary Arts and Sciences, argues for her pro-choice view but also urges respect for the life of the fetus. The two come together to civilly discuss their opposing views in a chapter-by-chapter give-and-take, but their discourse does not end there. They also find



JACK MULDER JR., PH.D.
ASSOCIATE PROFESSOR
OF PHILOSOPHY

common ground in their thoughts on economic and social justice, as well as sexual ethics, all pertinent to the abortion debate. In doing so, the two authors show how differing positions can nevertheless rest upon converging convictions and thus provide a way forward through a divide that has only seemed to widen in recent years.

"This issue is important because it is a matter of justice to both of us," says Mulder as he explains his reasons for writing the book with Manninen. "It's an issue that is not going to go away any time soon. And I think people's desires to make it go away often cut short the dialogue we should be having in a genuine democracy. We should always be talking, civilly, about where we disagree."

"Independently of how thorny the issue is, though, abortion is a fascinating debate for philosophers," Mulder continues, "because we get to talk about personhood, about rights and how far they extend, and about what makes a just society. There's a huge morass of philosophical questions in the abortion debate."

This book will prove essential reading for students across multiple disciplines, including applied ethics, medical ethics and bioethics, but will also be of interest to students of philosophy, religion and women's studies. □ — *Eva Dean Folkert '83*





REAL SYSTEMS, REAL CLIENTS

For Dr. Ryan McFall, scholarship often takes the form of software. “I work with my students to build real systems for real clients,” says McFall, a professor of computer science. Many of those clients are colleagues from the Hope community. In 2017, Hope’s Physical Plant staff came to McFall with a request: find a more efficient, computerized way to keep track of all the campus keys distributed to contractors day in and day out. A team of students from McFall’s senior seminar course analyzed the problem and, under his supervision, built software that will serve as a valuable tool for the Physical Plant team. This spring and summer, another team of students is developing new charting software for Hope’s nursing students. Collaborating with Tricia Kragt and Dr. Vicki Voskuil of the Department of Nursing, McFall and his students will create a simulated version of the software used in hospitals. Thanks to McFall, Hope graduates will enter the nursing profession already trained on the kinds of systems they’ll encounter in the healthcare industry.

ON THE COVER

Chemist Dr. Mary Elizabeth Anderson and her Hope College research group have developed a rapid and low-energy process for the fabrication of these thermoelectric nanoparticles — a class of material with sustainable energy potential to capture waste heat and convert it into usable electricity.

With several Hope colleagues and collaborators at Michigan State, she published a 2017 paper in the journal *Chemistry of Materials* that details this new synthetic process. “It’s as good, if not better, than the conventional, typical methods. You can do mine in a day; it takes them weeks,” she reports, and adds, “the overall thermoelectric performance of our material is equivalent to or outperforms theirs.”

Anderson builds materials from the bottom up, assembling molecules and atoms into complex nanomaterials. The Hope students in her research group gain experience in the interdisciplinary field of nanoscience: the chemistry of material fabrication, the physics of the forces that direct assembly, and the engineering involved in designing hierarchical architectures.

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