

Faculty Roles @ U.Va



Thank you

Other than
participate in
Final Exercises...



What do
faculty do?

The University of Virginia is a public institution of higher learning guided by a founding vision of discovery, innovation, and development of the full potential of talented students from all walks of life.

It serves the Commonwealth of Virginia, the nation, and the world by developing responsible citizen leaders and professionals; advancing, preserving, and disseminating knowledge; and providing world-class patient care.



What do faculty do?

Develop responsible
leaders and professionals

World class
patient care



Discovery &
Innovation



Advancing, preserving,
& disseminating knowledge



U.Va Mission Statement Embodied by Faculty Work and Roles

Develop responsible
leaders and professionals

World class
patient care



Research

Discovery &
Innovation



Teaching



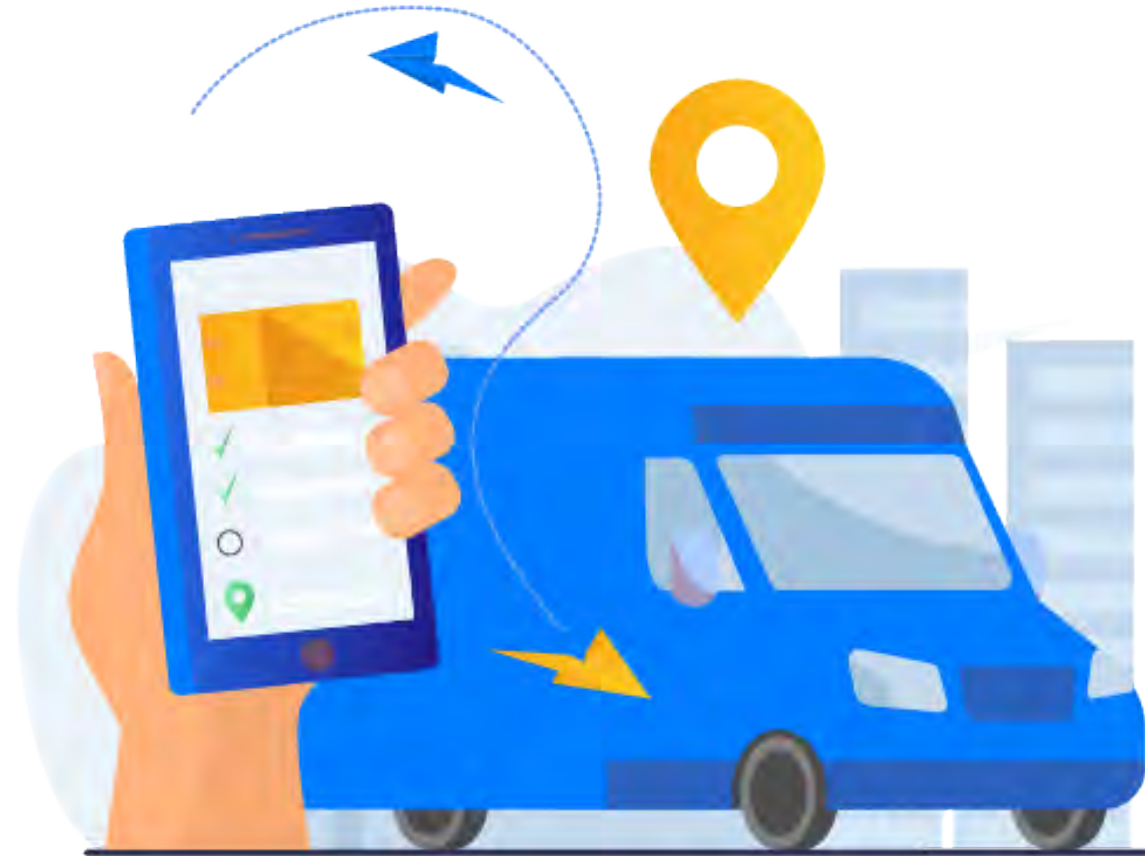
Service &
Engagements

Advancing, preserving,
& disseminating knowledge



Clinical

The faculty of the University of Virginia deliver on this promise



Publishing
Writing proposals
Collecting data
Hiring & managing
Writing reports
Presenting
Budgeting
Mentoring



Research:
Discovery &
Innovation



\$532M
Sponsored Funding
for FY22 - FY23

Research productivity & external funding is a major driver of rankings

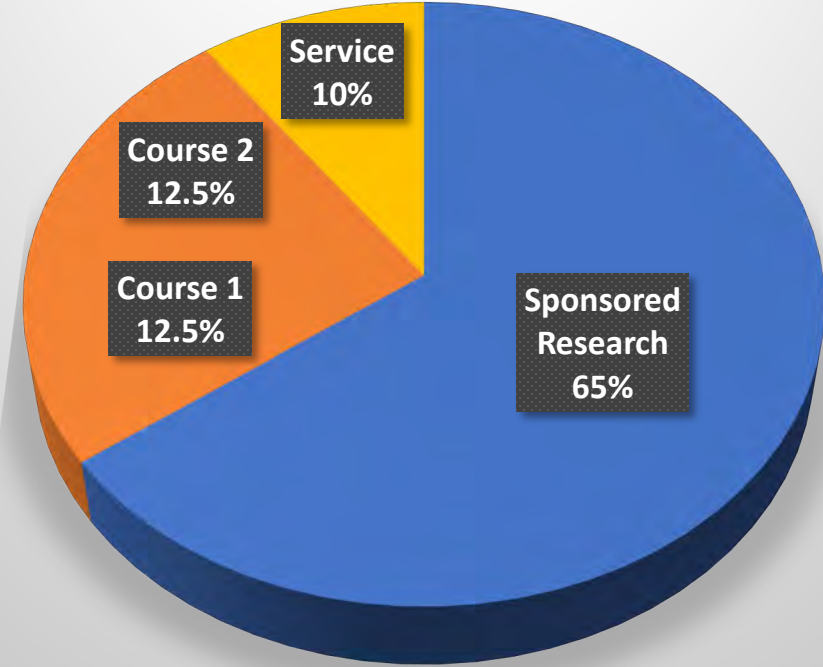


Michael Kennedy, Ph.D.
Professor of Special Education
School of Education and Human Development



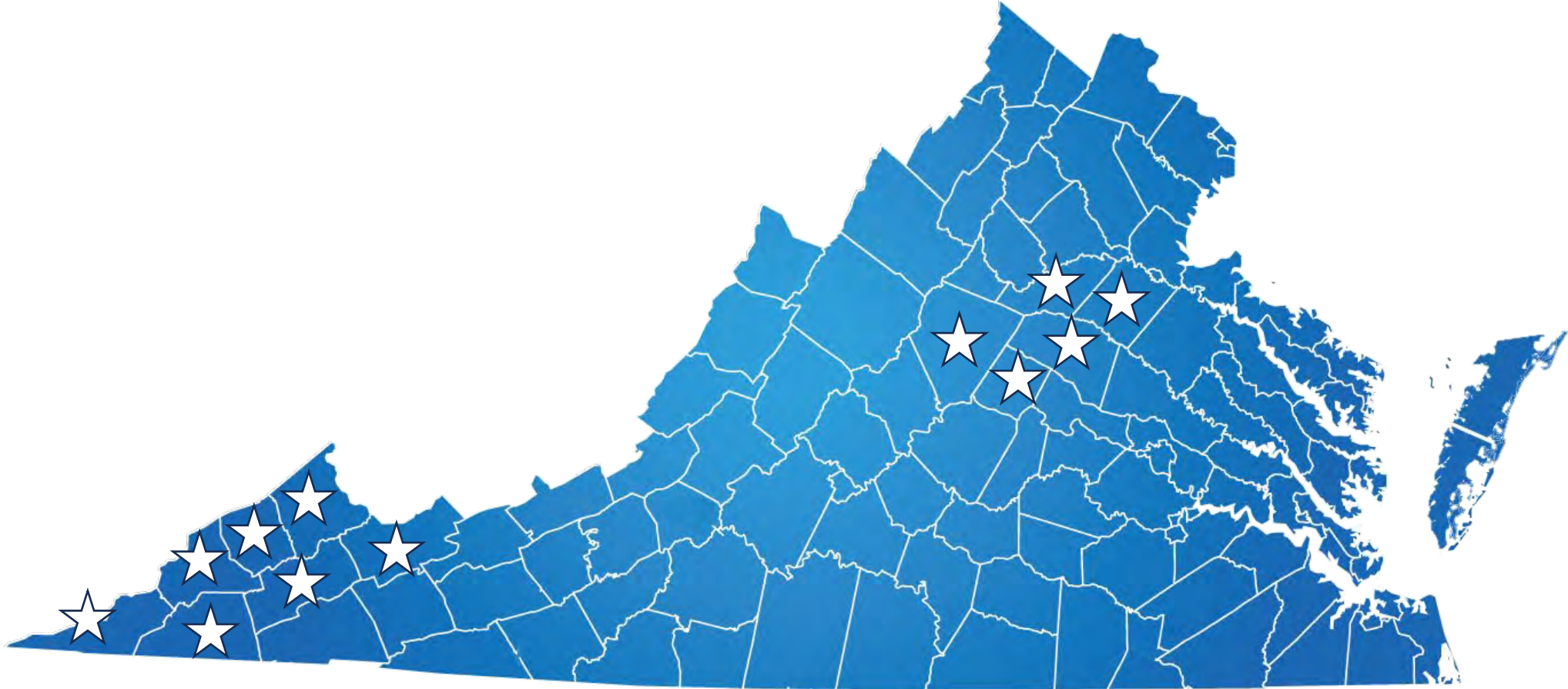
- 2-2 teaching load, but uses grant funds to “buy out” of 1 course each semester (1 course = 12.5%)
- Co-Editor of *Journal of Special Education Technology*
- Faculty Senate Chair (5th year on Senate)
- Serves on range of university and school committees (e.g., teaching awards, faculty wellness)

Kennedy Faculty Load 2023-24



- Advisor for 4 full time doctoral students and 15 masters/undergraduate students
- PI for 4 active research grants (~\$9 million) and two training grants (~\$3 million)
- **Research grants involve working directly with teachers and students in Southwest Virginia schools to improve outcomes for students with disabilities (and all students) and their teachers/family members**

Grant funds awarded to my lab in just the past few years (~\$12 million) have supported research conducted with 73 Virginia teachers and over 6,000 students. These teachers receive free professional development and access to project materials which are then used with students.



External grant dollars created full time jobs for these emerging scholars



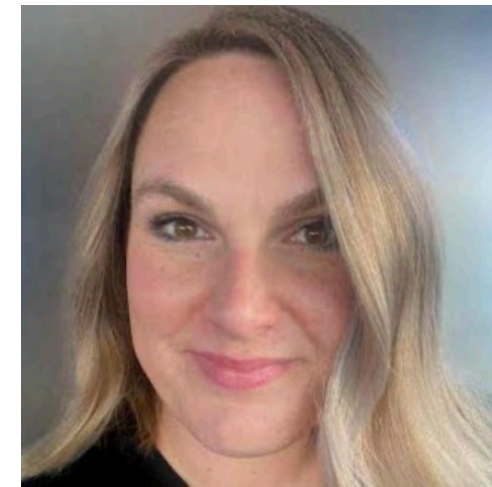
Dr. Christine Powell



Dr. Rachel Kunemund



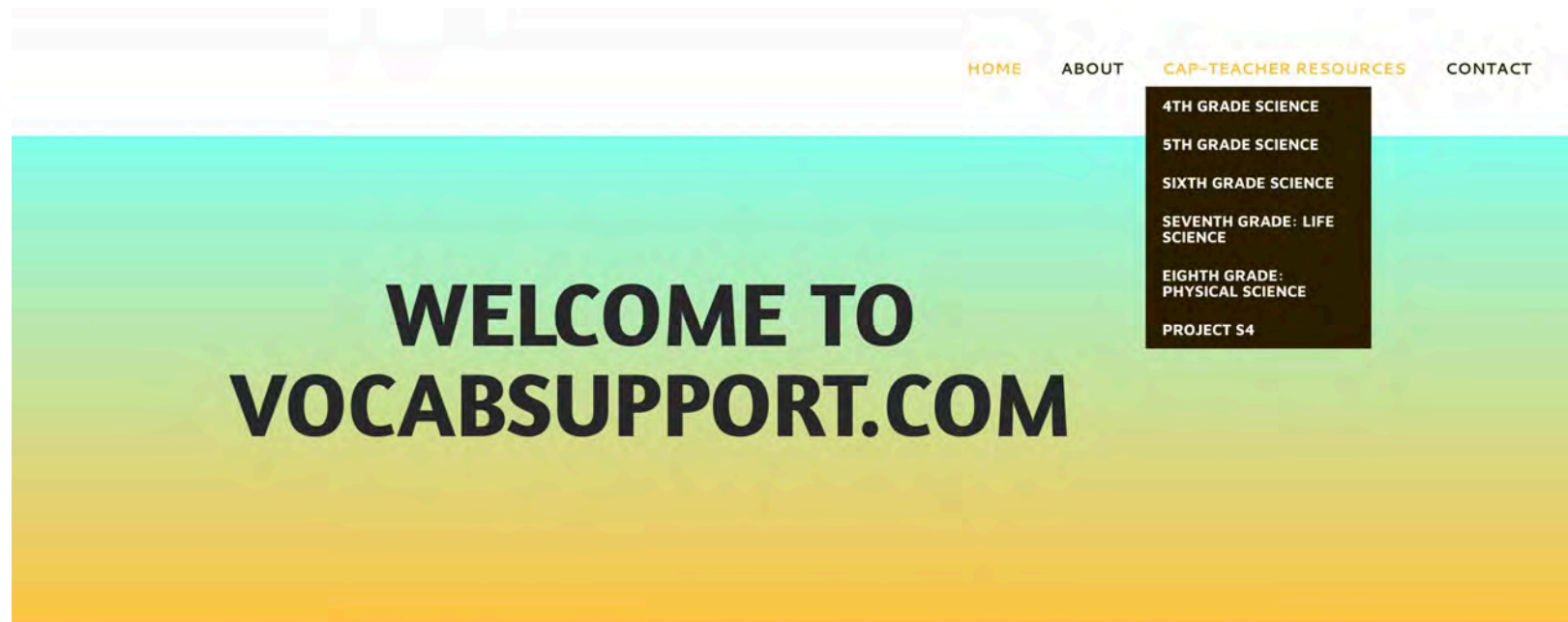
Dr. Olivia Coleman



Research dollars help sponsor undergraduate and graduate students and their research



We use grant funds to sponsor U.Va students as research assistants. Research assistants help design educational materials we provide to teachers and students, and contribute to publications and presentations.



The resources on this site are intended for:

- general & special education teachers (including co-teaching teams)
- students with and without disabilities, and their families

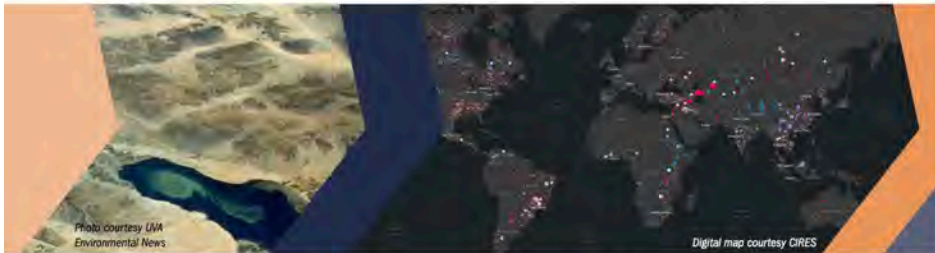
SIGNIFICANT DISCOVERIES



NEWLY DISCOVERED MOLECULE ORCHESTRATES IMMUNE SYSTEM

Neuroscience researchers led by John Lukens discovered that a molecule in the brain is responsible for orchestrating the immune system's responses to Alzheimer's disease and multiple sclerosis, potentially allowing doctors to supercharge the body's ability to fight devastating neurological diseases. The molecule directs immune cells called microglia to remove plaque buildup associated with Alzheimer's and prevent the debris buildup that causes MS.

- Josh Barney



SATELLITES REVEAL WIDESPREAD DECLINE IN GLOBAL LAKE WATER STORAGE

More than 50 percent of the largest lakes in the world are losing water, according to a new assessment published in Science by a group led by Fangfang Yao, and the key culprits are a warming climate and unsustainable human consumption. By tracking lake water storage trends and the reasons behind them with satellites, scientists can give water managers and communities insight into how to better protect critical sources of water and important regional ecosystems.

UVA RESEARCH ANNUAL REPORT // SIGNIFICANT DISCOVERIES

08



NEW TOOL TO IMPROVE CANCER TREATMENT

An algorithm developed by cancer center researchers led by Kristen Naegle offers a new and better way to pinpoint patients who will benefit from powerful cancer drugs called kinase inhibitors, an important step forward in precision medicine tailored to the individual. The algorithm, described in an article for Nature, performs better than existing approaches, and is more applicable to understanding a patient's cancer.

- Josh Barney



HYDROGEN COULD BE MAJOR COMPONENT OF CLEAN ENERGY

Researchers led by Sen Zhang are using electrolysis, using a plentiful renewable energy source such as solar energy, to create hydrogen at an industrial scale. This process is a potential answer to two of the world's most vexing problems: high energy demand and climate change, and is part of the current administration's "Earthshot" challenge to move the nation to net-zero carbon emissions by 2050.

- Eric Williamson

UVA RESEARCH ANNUAL REPORT // SIGNIFICANT DISCOVERIES

09

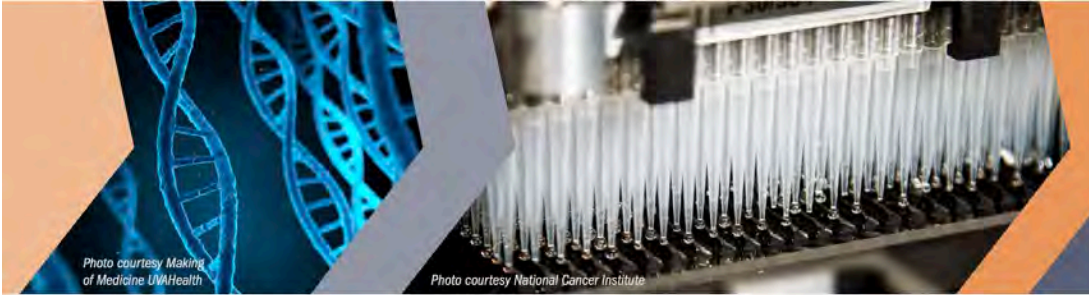


Photo courtesy Making of Medicine UVAHealth

Photo courtesy National Cancer Institute



HISTORIC GENOME ANALYSIS CAN LEAD TO BETTER TREATMENTS FOR MINORITIES

Trans-Omics for Precision Medicine (the TOPMed program) led by Stephen Rich, has analyzed the entire genetic makeup of more than 53,000 people of diverse backgrounds on different continents. Most of the people are from minority groups, which have been historically underrepresented in genetic studies. The increased representation should translate into a better understanding of how heart, lung, blood and sleep disorders affect minorities and help reduce longstanding health disparities.

- Josh Barney



Photo courtesy CBS19 News

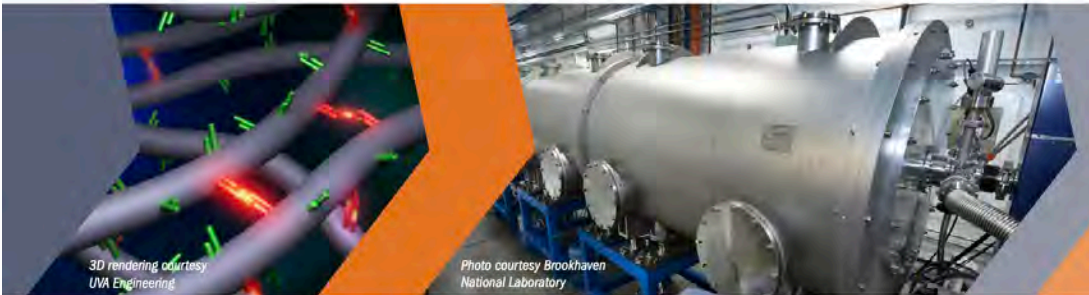
Photo courtesy UVA Communications



NEWLY IDENTIFIED PROCESSES COULD SUPPRESS THE RISK OF DEVELOPING MULTIPLE SCLEROSIS

Researchers led by Mariano Garcia-Blanco have identified a series of processes in cells that suppress the risk of developing multiple sclerosis. They found a gene that acts as a master controller for many other genes important in our susceptibility to MS and the proper functioning of our immune systems, and this discovery could lead to better prevention and treatment therapies.

- Josh Barney



3D rendering courtesy UVA Engineering

Photo courtesy Brookhaven National Laboratory



DISCOVERY CHALLENGES 30-YEAR-OLD DOGMA IN ASSOCIATIVE POLYMERS RESEARCH

A team led by Liheng Cai has published a study about a class of materials called associative polymers that challenges a long-held understanding of how the materials, which have unique self-healing and flow properties, function at the molecular level. The finding has implications on how these materials are used for creating everything from recyclable plastics to human tissue engineering.

- Josh Barney



Graphic courtesy UVA Batten Research

Photo courtesy UVA Batten Research

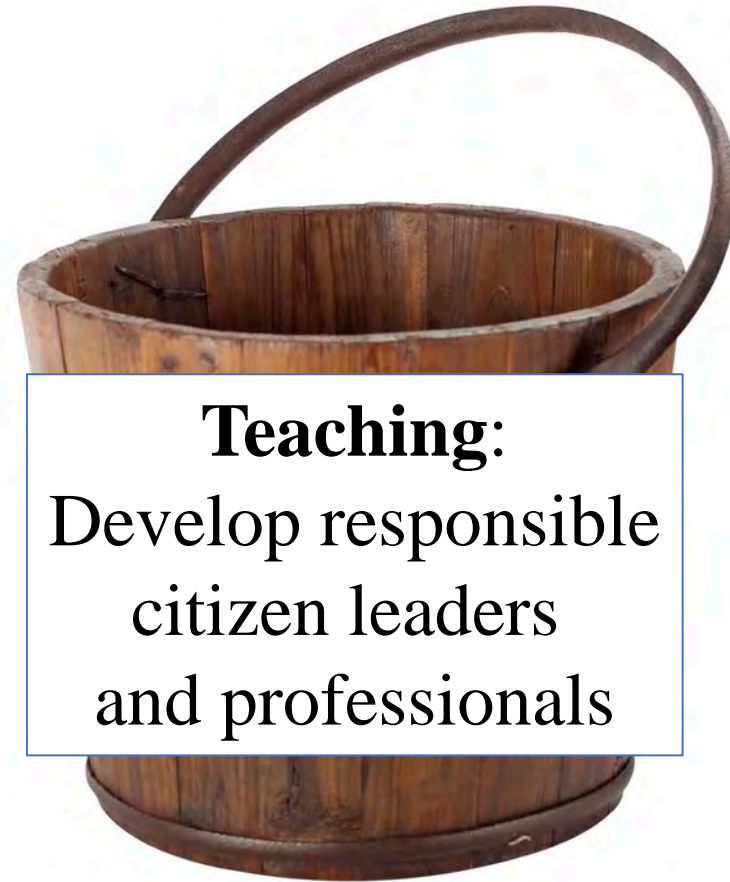


PRIMARY PATH FOR TURNING LEGISLATIVE EFFECTIVENESS INTO SUCCESS

Craig Volden headed a study on whether effective lawmakers in the US Congress receive electoral payoffs of their efforts. Are effective lawmakers better at warding off challengers in the next election? Do they win at a greater rate? To answer these questions, they drew on original data on congressional primary elections from 1980 to 2016, focusing on elections that lack partisan cues and where voters tend to be highly knowledgeable about politics.

- Craig Volden

Syllabus construction
New course approvals
Lecture planning
Rubric construction
Grading, grading, grading
Office hours & other 1-1 meetings
Updating course content
Support students with disabilities
Managing Tas
Advising students



Teaching:
Develop responsible
citizen leaders
and professionals







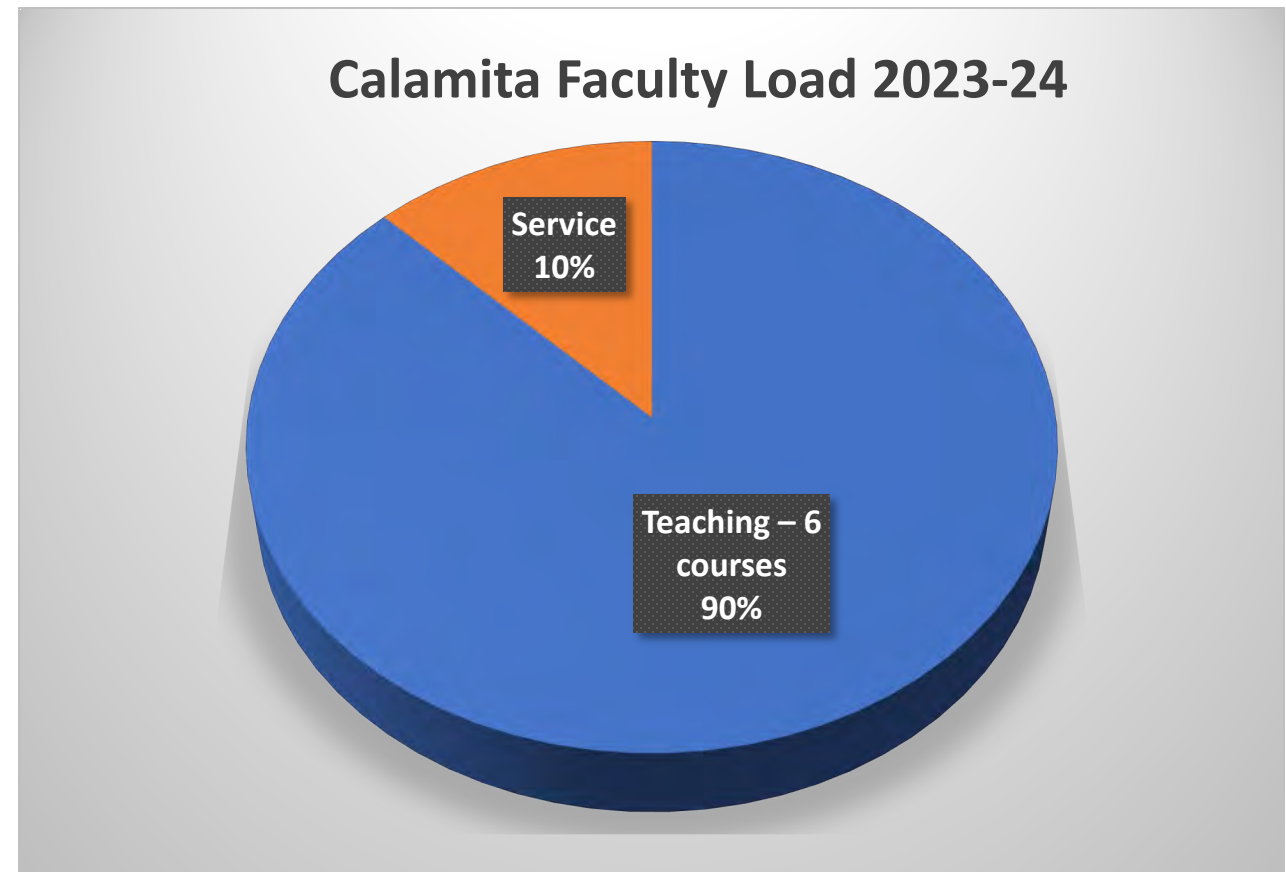


FROM COURSES TO COOKING ONLINE, UVA'S AWARD-WINNING TEACHERS CONNECT WITH STUDENTS



This past year, teaching professors “kicked it up a notch” in expressing compassion and positivity, not only to keep students engaged, but also to build trust and be there as everyone struggled with the difficult times.

Francesca Calamita, Ph.D.
Associate Professor of Italian Studies
College of Arts and Sciences



- **3-3 teaching load – 6 courses a year**
- Director of UG Program in Italian Studies
- Teaches J-Term each year
- Director of U.Va in Italy/Study abroad program

- Served Provost's office on various committees
- Steering committee for Centre for Study of Contemporary Women's Writing at U of London in UK
- Faculty Senator

U.Va Faculty provide service to field/community, university, school, and department/program including various scholarly engagements

Journal editing

Peer review participation

University committees

School committees

Promotions & Tenure participation

Mentoring jr. colleagues

Faculty or school senate

External reviews



Service & Engagements:
Advancing, preserving,
& disseminating knowledge

Ideas and research from U.Va
impact the Commonwealth and the world -
Faculty are drivers of innovation
and dissemination



Since 1997, UVA has been conducting an annual reading screening of children to identify students at risk for reading difficulties and guide supports to students and teachers based on the science of teaching and learning.

School Year	Number of K-3 Students in State who Completed UVA's Literacy Screening
2018-2019	234,191 (96%)
2019-2020	240,207 (96%)
2020-2021	245,240 (95%)
2021-2022	271,208 (97%)
2022-2023	274,718 (97%)

Note: % indicates percentage of eligible K-3 students in VA schools who completed screening

Dr. Kirsten Gelsdorf

Professor of Practice

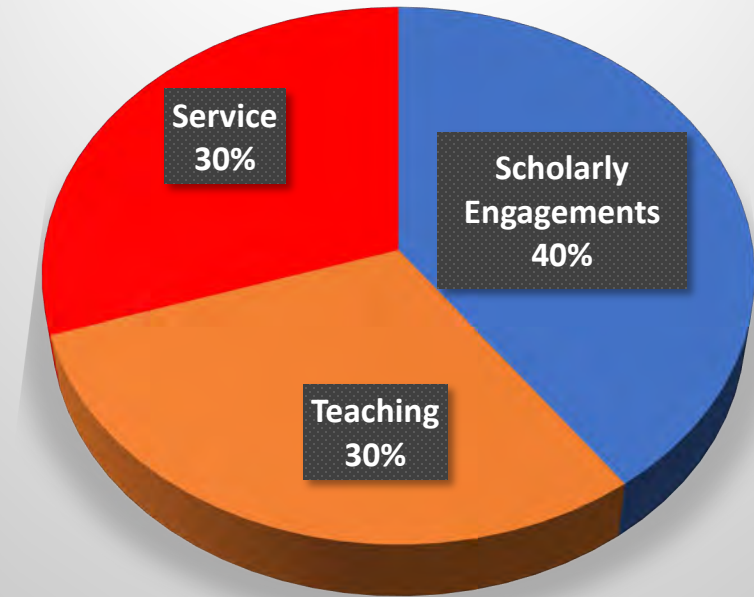
Batten School of Leadership and Public Policy

Former Chief of Policy Analysis, United Nations Office for the Coordination of Humanitarian Affairs



- 40% Engagement, 30% Teaching (incl. Batten's largest elective), 30% Service
- **Co-Director of the UVA Humanitarian Collaborative where 12 faculty and 26 students collaborate with over 20 different global policy practitioners/organizations to address real-time policy and operational challenges.**
- **PI for research and policy grants with Sesame Street Workshop, United Nations, Humanitarian Innovation Fund**
- **Elected to serve on Save the Children's Strategic Advisory Group, the World Economic Forum Advisory Network, and a Senior Fellow at the United Nations Centre for Humanitarian Data**

Gelsdorf Faculty Load 2023-24



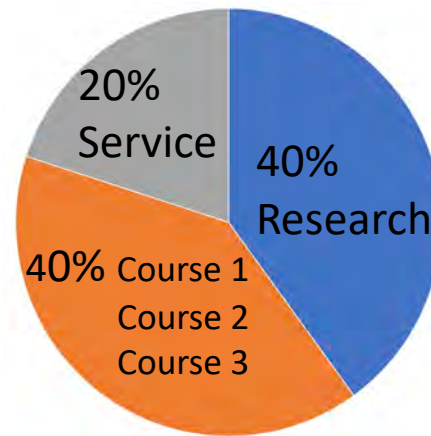
- Research and commentary in *The New Yorker*, National Public Radio (NPR), Washington Post, Christian Science Monitor and DevEx
- Published *Understanding the Humanitarian World* (Routledge), launched limited-series podcast *Beyond Aid* (CSIS) runs global *Read for Action* initiative
- Serves on 12 University and Batten committees
- State of Virginia Outstanding Faculty Award, the University of Virginia Excellence in Public Interest Research Award, the University of Virginia All-University Teaching Award, and the Batten School Excellence in Service, Engagement, and Teaching

James H. Lambert

Janet Scott Hamilton and John Downman Hamilton Professor
Director, Center for Risk Management of Engineering Systems
School of Engineering & Applied Science



- **Chair, 5th World Congress on Risk, Cape Town**
- **Chair, Annual Meeting, Society for Risk Analysis, Washington D.C.**
- **Chair, 8th Internatl. Engineering Systems Symposium, Charlottesville**
- **Advisory Co-Chair, 10th Internatl. Conference on Control Decision & Info. Technologies, Malta**
- **President (2015-16), Society for Risk Analysis**
- **Editor-in-Chief, Springer journal**
- Site Director, NSF Center for Hardware & Embedded Systems Security & Trust
- Sponsors: US National Science Foundation, USACE, Port of VA, USAID, VDOT, CCALS, MITRE Corporation, Transportation Security Administration, Federal Aviation Administration
- Fellow of AAAS, IEEE, SRA, ASCE; P.E.
- Chair-Elect, Faculty Senate
- Faculty Representative, UVA Athletics Advisory Council



Seeing patients
Surgery
Office hours
Home visits
Mentoring
Supervising
Teaching
Research links
Clinical trials



Clinical:
World class
patient care



#1 Children's Hospital in Virginia, 3 Years in a Row

U.S. News & World Report has again ranked UVA Health Children's the best children's hospital in the state, with 9 of our pediatric specialties in the top 50 in the nation. We're thankful we can offer this world-class care — because your kids mean the world to us.



[SEE OUR RANKINGS](#)

<https://uvahealth.com>

Taison D. Bell, MD, MBA

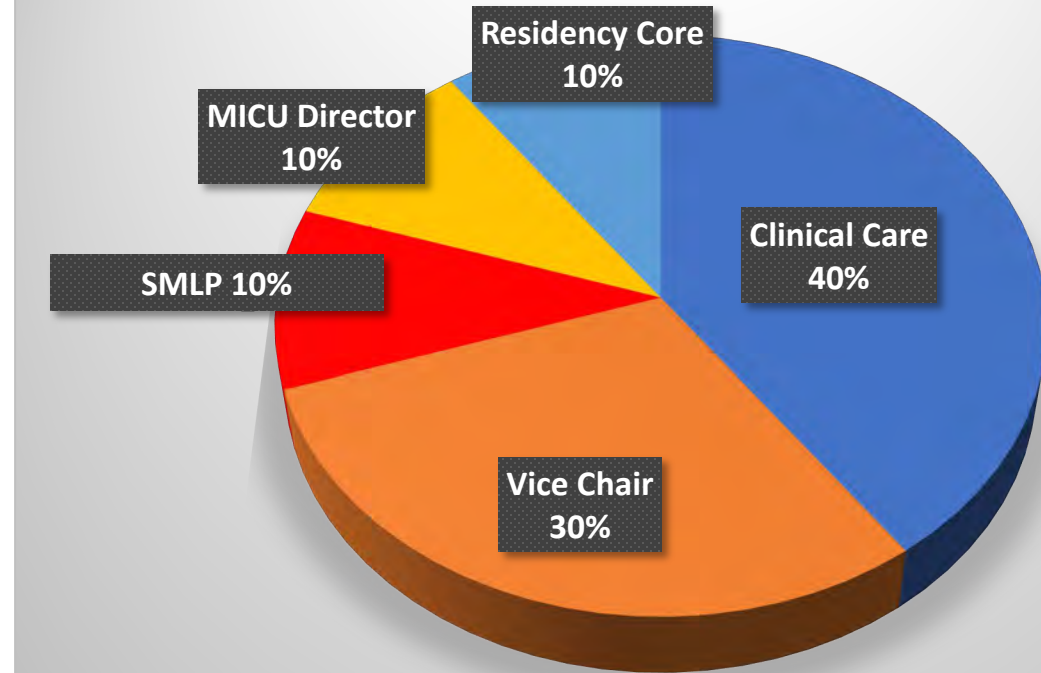
Associate Professor of Medicine
School of Medicine

Former CLAS 2005, Darden 2020



- Attending physician in the Medical Intensive Care Unit at UVA Health 12 weeks per year
- Attending physician on the Infectious Diseases Consult Service at UVA Health 4 weeks per year
- Vice Chair for Faculty Affairs in the Department of Medicine
- Director of the Summer Medical Leadership Program for disadvantaged premedical students

Bell Faculty Load 2023-24



- Core faculty for the Internal Medicine Residency Program
- Course director for the phase 3 medical student critical care rotation
- Co-chair of the University Physicians Group Investment Committee
- Teaching a USEM course on the COVID-19 pandemic in the spring
- Collaborative research group applying machine learning and deep learning models to detect bloodstream infection



S U M M A R Y

We are defined by:

- Our enduring commitment to a vibrant and unique residential learning environment marked by the free and collegial exchange of ideas;
- Our unwavering support of a collaborative, diverse community bound together by distinctive foundational values of honor, integrity, trust, and respect; and
- Our universal dedication to excellence and affordable access.



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The faculty of this great university deliver on this promise year in and out, and will always do whatever is needed to ensure the success of our students, patients, and community



Any questions?

Thank You!