# SUMMARY

# New Appointments to Endowed Chairs, Professorships, or Fellowships (5)

# August 25, 2020

# College of Engineering (1)

| Xianming (David) Bai | Thomas G. Digges and Thomas G. Digges, Jr.              |
|----------------------|---|
|                      | Faculty Fellowship in Materials Science and Engineering |

# College of Science (4)

| Eric Bahel         | Patricia A. Caldwell Faculty Fellowship            |
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| Lauren Childs      | Cliff and Agnes Lilly Faculty Fellowship           |
| Carla Finkielstein | Luther and Alice Hamlett Junior Faculty Fellowship |
| John Matson        | Dr. A.C. Lilly, Jr. Faculty Fellowship             |

### ENDOWED FELLOWSHIP Thomas G. Digges and Thomas G. Digges, Jr. Faculty Fellow of Materials Science and Engineering

The Thomas G. Digges and Thomas G. Digges, Jr. Faculty Fellow of Materials Science and Engineering was established with a generous gift from the estate of Robert H. Digges '59. Mr. Digges created this fund to honor his father Thomas G. Digges Class of 1920 and his brother Thomas G. Digges Jr., Class of 1960 in order to enable the Department of Materials Science and Engineering to recruit and retain outstanding faculty. Dean Julia Ross has nominated Dr. Xianming (David) Bai for the 2020 Digges Faculty Fellow award based upon the recommendation of the honorifics committees of the Department of Materials Science and Engineering (MSE) and the College of Engineering.

Professor Bai works in the area of computational materials science with a focus on the behavior of materials under radiation. His modeling research is helping clarify fundamental processes that affect the properties and applications of materials. Dr. Bai has excelled in all aspects of the university's mission. In his first four years at Virginia Tech, he attracted more than \$1.8M of external funding from several divisions of the Department of Energy, the Jeffress Trust Awards Program, and the NSF CAREER Award program. He and his students authored 53 papers in high-visibility and influential journals (including *Science*), and he received a number of notable awards including the 2015 TMS Young Leader Professional Development Award (TMS is a professional materials science society with 14,000 members on six continents) and the 2018 Oak Ridge Associated Universities (ORAU) Ralph E. Powe Junior Faculty Enhancement Award.

David is an important contributor to the MSE Department's instructional activities. He has taught two different graduate courses, Advanced Thermodynamics and Introduction to Molecular Dynamics Simulation (which he developed) and a core undergraduate course, Physical Metallurgy. In addition, he has supervised five undergraduate research projects and two teams of seniors in the department's capstone design course. He has been on the advisory committees of graduate students from five different departments, advises a student professional society, and has been successful recruiting diverse students into MSE's graduate program.

In the area of national service, Dr. Bai is a prolific contributor to four materials-related professional societies, having organized eight symposia and workshops and served as guest editor for three special publications over the past seven years. He also is an executive committee member of the American Nuclear Society – Virginia Section.

#### **RECOMMENDATION:**

That Dr. David Bai be appointed as the Thomas G. Digges and Thomas G. Digges, Jr. Faculty Fellow in Materials Science and Engineering for a nonrenewable period of 2 years effective August 10, 2020 with a salary supplement and program support funds as provided by the endowment and the eminent scholar match, if available..

#### ENDOWED FELLOWSHIP Patricia A. Caldwell Faculty Fellowship

The Patricia A. Caldwell Faculty Fellowship was established by a generous donation from its namesake to enhance the national and international prominence of the Virginia Tech College of Science. Ms. Patricia A. Caldwell, who earned her bachelor's degree in mathematics as a 1971 graduate of Virginia Tech, established this fellowship to recognize faculty dedicated to extraordinary research; to recruit scholars with exceptional records of achievement; and/or to retain high-performing faculty members in any discipline or transdisciplinary area within the College. A recipient shall hold the fellowship for a period of three years with possible renewal.

Dr. Sally C. Morton, Dean of the College of Science, has nominated Dr. Eric Bahel, Associate Professor of Economics, to be the recipient of this fellowship, concurring with the recommendation of the College of Science Honorifics Committee.

Dr. Bahel joined the Department of Economics in 2009 as an assistant professor and was promoted to associate professor in 2015. He earned his Ph.D. in Economics from Université de Montréal (Canada) in 2009.

Dr. Bahel has established an impressive record of research during his years at Virginia Tech with a clearly defined trajectory for continued research excellence and impact. His research in social choice focuses on decision-making, collective choice and voting rules and in the field of resource and environmental economics, on optimal development of alternative sources of energy and climate change mitigation. Dr. Bahel's research has practical implications for important problems facing societies today.

Dr. Bahel has published 18 peer-reviewed papers in high-impact journals with over 35 professional presentations at national and international conferences. Dr. Bahel has served on the program committee for professional conferences in Morocco and France. His research has been supported with grants from the Institute for Society, Culture and Environment and the Global Forum on Urban & Regional Resilience.

Dr. Bahel has received several awards for outstanding faculty in Economics at Virginia Tech: Outstanding Graduate Faculty of the Year, Outstanding Undergraduate Faculty of the Year and Outstanding (Faculty) Service Award.

#### **RECOMMENDATION:**

That Eric Akcel Bahel, Ph.D. be appointed a Patricia A. Caldwell Faculty Fellow for a three-year term, effective August 10, 2020, with operating support as provided by the endowment and the eminent scholar match, if available.

### ENDOWED FELLOWSHIP Cliff and Agnes Lilly Faculty Fellowship

The Cliff and Agnes Lilly Faculty Fellowship was established by a generous donation from Agnes Lilly to enhance the national and international prominence of the Virginia Tech College of Science. The fellowship was established to support and recognize faculty dedicated to extraordinary research and/or teaching; to recruit scholars with exceptional records of achievement; and/or retain high-performing faculty members who make significant contributions to research and/or teaching efforts at the university and beyond. The recipient shall hold the fellowship for a period of three years with possible renewal.

Dr. Sally C. Morton, Dean of the College of Science, has nominated Dr. Lauren M. Childs, assistant professor in the Department of Mathematics, to be the recipient of this fellowship, concurring with the recommendation of the College of Science Honorifics Committee.

Dr. Childs joined the Department of Mathematics in 2016 as an assistant professor. Before starting at Virginia Tech, she served as a research scientist and postdoctoral fellow in the Center for Communicable Disease Dynamics at the Harvard T.H. Chan School of Public Health from 2012 to 2016 and as postdoctoral researcher in the School of Mathematics and the School of Biology at Georgia Institute of Technology. Dr. Childs earned her Ph.D. in Applied Mathematics from Cornell University in 2010.

Dr. Childs' research is in mathematical biology and combines mathematical models, theoretical analysis, and biological insight to understand infectious disease dynamics such as those of the current outbreak of COVID-19. Her recent work, with focus on realism of epidemiological disease models and the development of host immune responses, successfully bridges the experimental, computational and theoretical approaches to research.

Dr. Childs' scholarship record is strong, with close to 30 publications in leading research journals and more than 65 invited professional presentations. Her research expertise has been recognized with two recent awards from the National Science Foundation to study infectious disease dynamics.

Dr. Childs' teaching record is equally impressive. She integrates her research into her teaching of mathematics, systems biology and computational modeling and data analytics courses and has successfully engaged a number of undergraduate and graduate students in publication of their research. Her research and teaching efforts thus far have been extraordinary and undoubtedly will continue to have great influence and impact on local, national and international communities.

## **RECOMMENDATION:**

That Lauren M. Childs, Ph.D. be appointed the Cliff and Agnes Lilly Faculty Fellow for a three-year term, effective August 10, 2020, with operating support as provided by the endowment and the eminent scholar match, if available.

#### ENDOWED FELLOWSHIP Luther and Alice Hamlett Junior Faculty Fellowship

The Luther and Alice Hamlett Junior Faculty Fellowships were established in the College of Science through a generous bequest from the estate of the late Dr. Luther J. Hamlett. Dr. Hamlett earned his bachelor's degree in biology as a 1945 graduate of Virginia Tech. These fellowships were established to provide support for outstanding faculty members who hold the rank of assistant or associate professor, and whose work supports the missions of the college's Academy of Integrated Science. A recipient shall hold the fellowship for a period of three years with one possible renewal. Dr. Sally C. Morton, Dean of the College of Science, has nominated Dr. Carla V. Finkielstein, associate professor of biological sciences, to hold one of these endowed fellowships.

Dr. Finkielstein, who joined the Department of Biological Sciences in 2005 as an assistant professor, was promoted to associate professor in 2011. She previously spent seven years at the University of Colorado Health Sciences Center, with three years as a research associate at the Howard Hughes Medical Institute, then as a postdoctoral fellow with the University of Colorado Health Sciences Center School of Medicine for four years. She earned her Ph.D. in Biological Chemistry from the University of Buenos Aires in 1998.

Dr. Finkielstein is the associate division Leader of the Academy of Integrated Science's nanoscience division. She is affiliated Faculty of Health Science and was a founding member of the Virginia Tech Cancer Research Alliance. She was recently appointed the director of the new Virginia Tech Molecular Diagnostics Laboratory at the Fralin Biomedical Research Institute. Dr. Finkielstein has been instrumental in establishing the new major in nanomedicine in the nanoscience degree program. She teaches nanomedicine, clinical biology and cell and molecular biology, all of which are central to the nanoscience program. Notably, she has been strongly committed to mentoring undergraduate and graduate research, having hosted 12 graduate students and more than 100 undergraduate students in her research lab in her years at Virginia Tech.

Dr. Finkielstein's scholarship record is strong, with close to 50 publications in leading research journals, ten book chapters, and more than 70 invited or keynote presentations at professional conferences. Her research is covered regularly by various news outlets. She is an editorial board member of the research journals *Scientific Reports* (Nature Publishing Group) and *Frontiers in Physiology.* 

Dr. Finkielstein's research expertise has been recognized with funding from the highest levels. From 2009 until 2014 she has been the recipient of a prestigious National Science Foundation (NSF) CAREER Award. Her funding record includes grants from NSF (*A combined mathematical and bioengineering approach to elucidate the contribution of circadian factors in the cellular response to genotoxic stress),* from the National Institute of Health / National Cancer Institute as well as from the American Heart Association.

## **RECOMMENDATION:**

That Carla V. Finkielstein, Ph.D. be appointed a Luther and Alice Hamlett Junior Faculty Fellow for a three-year term, effective August 10, 2020, with operating support as provided by the endowment and the eminent scholar match, if available.

## ENDOWED FELLOWSHIP Dr. A.C. Lilly, Jr. Faculty Fellowship

The Dr. A.C. Lilly, Jr. Faculty Fellowship was established by a generous donation from its namesake to enhance the national and international prominence of the Virginia Tech College of Science. Arnys Clifton "Cliff" Lilly, Jr., who passed away in 2011, earned a bachelor's degree in geological sciences from Virginia Tech in 1956 and a Ph.D. in physics from Virginia Tech in 1989. This fellowship was established in the field of nanoscience to recognize faculty dedicated to extraordinary research; to recruit scholars with exceptional records of achievement; and/or to retain high-performing faculty members. The recipient shall hold the fellowship for a period of three years with possible renewal.

Dr. Sally C. Morton, Dean of the College of Science, has nominated Dr. John B. Matson, Associate Professor of Chemistry, to be the recipient of this fellowship, concurring with the recommendation of the faculty review committee.

Dr. Matson joined the Department of Chemistry in 2012 as an assistant professor and was promoted to associate professor in 2018. Before starting at Virginia Tech, he served as postdoctoral fellow at Northwestern University from 2009 to 2012. Dr. Matson earned his Ph.D. in Chemistry from the California Institute of Technology (Caltech) in 2009.

Dr. Matson's research focuses on soft and hybrid hard-soft nanoscale materials inspired by natural nanostructures. He and his team of students and postdocs are currently investigating the use of water-soluble nanohelices made from peptides as platforms for drug delivery, catalysis, and enhanced sensing.

Dr. Matson's scholarship record is strong, with close to 70 publications in leading research journals and more than 60 invited conference and departmental presentations. He currently serves on the Editorial Advisory Boards for a number of research journals including *Polymer Chemistry, Journal of Polymer Science* and *Polymer International*. He is also currently a titular member of the Polymer Division of the International Union of Pure and Applied Chemistry (IUPAC).

Dr. Matson's research expertise has been recognized with funding from the highest levels. He has received grants from the National Science Foundation (Division of Chemistry and Division of Materials Research), the National Institutes of Health (National Institute of General Medical Sciences), the Binational Science Foundation (Israel), the Army Research Office, the American Chemical Society, the Dreyfus Foundation and the Humboldt Foundation (Germany).

#### **RECOMMENDATION:**

That John B. Matson, Ph.D. be appointed the Dr. A.C. Lilly, Jr. Faculty Fellow for a threeyear term, effective August 10, 2020, with operating support as provided by the endowment and the eminent scholar match, if available.