Spotlight on STEM Women

Dr. Carissa M. Krane joined the Department of Biology at the University of Dayton (UD) as an Assistant Professor in 2001 and was promoted to Associate Professor in 2007. Having received her Ph.D. in Molecular Genetics in 1996, she then completed post-doctoral training in molecular physiology at the University of Cincinnati College of Medicine.

Dr. Krane has published over 20 peer-reviewed research articles in top-ranked journals in her field. She has presented her research at both national and international conferences, in addition to 20+ invited seminars. The recipient of major federal funding from both the NSF and NIH/NHLBI, Dr. Krane is currently the PI/Co-PI on multiple projects with budgets totaling over $350k.

Associate Director of the University Honors Program at UD, Dr. Krane’s exceptional teaching earned her an Outstanding Teaching Award in the College of Arts and Sciences at UD in 2009. Beyond the classroom, Dr. Krane has served on numerous university, departmental, and non-university committees. She currently serves as a grant reviewer for both the NIH and NSF.

Dr. Krane teaches graduate and undergraduate courses in her area of expertise, including upper-level courses in Physiology.

What are your current research interests?

“My main area of research explores questions related to the physiological control of water and ion homeostasis in mammals. My studies aim to determine the functional importance of osmotically driven water movement through water channels, or Aquaporins. The graduate and undergraduate students who work with me in my laboratory, use the tools of molecular biology, genetics and physiology to address specific questions regarding the physiological role of a specific water channels in asthma in humans and mice, and in cryoprotection in freeze-tolerant tree frogs that live in Ohio.”

What do you like most about being a scientist?

“Seeking new knowledge, and finding answers to questions in the life sciences is intellectually challenging, and requires creativity, imagination, and curiosity. The power of observation can lead to intriguing questions, which develop into testable hypotheses. The process of experimentation and discovery is very rewarding.”

What would you say to women considering a career in your field?

“Follow your passions in science, and explore your curiosities. Be willing to collaborate with new and diverse colleagues from other disciplines who can assist you in seeing your question or area of research in new way. And probably most importantly, when you have the means, ‘pay it forward’ to the next generation of scientists—mentor those who come after you, as someone did for you along your career path.”

Dr. Carissa M. Krane, Assoc. Professor, Biology, UD

The LEADER Ledger © is a publication of the LEADER Consortium at Wright State University. The LEADER Consortium is a cooperative agreement between the Air Force Institute of Technology (AFIT), Central State University (CSU), the University of Dayton (UD) and Wright State University (WSU). The LEADER Consortium is funded by an ADVANCE Institutional Transformation Award from the National Science Foundation (Award #0810989). All materials published herein were written and prepared by Dr. Stephanie A. Goodwin, Program Director for the LEADER Consortium. Questions about the contents of this newsletter may be directed to: leader@wright.edu.
Academic Juggling Acts: Balance Requires Boundaries

A quick survey of blogs on academic life reveals a clear and not-surprising concern among faculty—managing a challenging and successful academic career can sometimes leave little time for life outside of the office. As younger generations of PhD’s enter the academy, there is a growing recognition that faculty—both men and women—want and expect time for family and other personal pursuits (e.g., exercise, volunteering) beyond their working lives.

The challenge of achieving a satisfactory balance between professional and personal priorities is not unique to academic career paths. As smart phones, wi-fi, and laptop computers have become the norm, more and more professionals face expectations from employers to bring their work responsibilities home. Research conducted by the Pew Research Center suggests that many Americans perceive the boundaries between work and home have been blurred in unwanted ways by the use of these devices.

While an increasing number of faculty express an interest in achieving a healthy balance between work and other roles, a number of pressures within the academy may make these goals harder to achieve. Academics are not, of course, immune to technological pressures to “stay connected.” As early adopters of the Internet, academics are expected to manage high volumes of e-mail and to take advantage of remote tools for research (e.g., electronic databases) and teaching (e.g., course websites). These tools, of course, blur the line between work and home. Students’ expectations that faculty be available electronically at all hours of the day only add to these pressures.

Additional factors undermining balance are evident at academic institutions where the need to trim budgets and justify tuition increases have prompted higher expectations for research productivity, external funding, and teaching quality and quantity. These pressures are compounded by the competition to publish in fields where the number of faculty seeking to publish have outpaced journal space.

Of course, the pressure to work more and make time for other activities in one’s “free time” have important costs for our academic culture and the long-term success of our institutions. In STEM fields, the perception that a satisfactory work-life balance and academic career success are incompatible has lead many talented individuals—particularly women—to leave the academic career path. Moreover, studies of health and workplace stress suggest that achieving a satisfactory sense of balance between work and other priorities is essential to long-term physical and psychological health. Academic institutions that promote such a balance are more likely to promote a healthy workforce. Thus, it is in the interests of individual faculty as well as academic institutions to recognize and support faculty priorities both within and beyond the workplace.

What strategies can faculty use to achieve a successful balance between work and other priorities? Faculty who find it challenging to “unplug” can set aside specific times of the day/week to turn off electronic equipment. Adding these times as “appointments” in one’s calendar is one way to remember to step away from the computer, turn off the phone, and focus on other priorities.

Setting clear expectations for one’s availability to students can reduce unwanted (and often inappropriate) student intrusions on personal time. Inserting statements in the course syllabus regarding expectations for communication and responsiveness (e.g., “I’m available between 9am and 5pm; I will respond to e-mail within 24 hours”) can support these boundaries.

Developing a written plan that clearly articulates both work and other priorities can clarify what is important and should be a priority. Understanding the challenges that undermine satisfactory balance is key to identifying strategies for managing priorities for work and beyond.

Finally, knowing when to say “no” can help faculty maintain boundaries and promote more effective use of time. The flexibility of academic work can make faculty vulnerable to overcommitting their time to projects and responsibilities that may not serve their primary personal and career goals.

Resources

Many Thanks to Our Supporters!

As a partnership among four diverse institutions, the LEADER Consortium benefits from the broad support of many individuals who volunteer their time to serve on committees or go beyond the call of duty to make our programming and events a success. The PI, Co-PIs and Program Director of the Consortium would like to acknowledge and thank the many people who have contributed their time and expertise over the course of the past year in service to our initiatives, programming and events. We look forward to working with you all in the new year!

**AFIT**
- Dr. Aidedeji Badiru
- Dr. Michael Caylor
- Dr. Nathaniel Davis, IV
- Dr. Nancy Giles
- Ms. Lori Kinder
- Dr. Alan Lair
- Dr. Bradley Liebst
- Dr. James Moore
- Dr. Randall Paschall
- Dr. Joseph Pignatiello
- Dr. Mark Reeder
- LtCol Doral Sandlin
- Ms. Katie Scott
- Dr. Paul Wolf
- Dr. Aihua Wood

**CSU**
- Mr. Mahmoud Abdallah
- Dr. Julie Bell
- Ms. Jennifer Bradshaw
- Dr. Flore Chevaillier
- Dr. Lovette Chinwah
- Dr. Willie Houston, Jr.
- Ms. Marian Hoey
- Dr. Dennise Huggins
- Ms. Pamela Jackson
- Dr. Kimberly Kendricks
- Mr. Morakinyo Kuti
- Dr. Cadance Lowell
- Mr. Robert Marcus
- Dr. Augustus Morris
- Dr. Krishna Kumar Nedunuri
- Dr. Joe Ross
- Dr. Suzanne Seleem
- Dr. Daniel Shook
- Dr. Subramania Sritharan
- Dr. Karen Townsend
- Ms. Susan Wachtel
- Dr. Xiaofang Wei
- Mr. Sydney Williams
- Dr. Rose Woody

**UD**
- Dr. Paul Benson
- Dr. Rex Berney
- Dr. Deborah Bickford
- Ms. Rebecca Blust
- Ms. Julie Brill
- Dr. Mary Brown
- Dr. Charles Browning
- Dr. Donald Chase
- Dr. Dale Courte
- Dr. Peggy DesAutels
- Dr. Wiebke Diestelkamp
- Dr. Patrick Donnelly
- Dr. Danny Eylon
- Dr. Joseph Haus
- Dr. Kelly Kissock
- Ms. Sue Krisko
- Dr. Joe Mashburn
- Dr. Mark Masthay
- Dr. Allen McGrew
- Ms. Jill Morgan
- Dr. Margaret Pinnell
- Dr. Donald Polzella
- Ms. Meghan Rehberg
- Ms. Lisa Rismiller
- Dr. Jayne Robinson
- Dr. Carolyn Roecker Phelps
- Dr. Joseph Saliba
- Dr. Tony Saliba
- Mr. Scott Segalewitz
- Dr. Guru Subramanyam
- Dr. Patrick Sweeney

**WSU**
- Dr. Steven Angle
- Dr. Steven Berberich
- Dr. Paula Bubulya
- Dr. Timothy Cope
- Dr. David Dominic
- Ms. Jessica Drennan
- Dr. Kathrin Engisch
- Dr. Weifu Fang
- Dr. Rudy Fichtenbaum

**Other Institutions**
- Dr. John Flach
- Dr. Jennie Gallimore
- Dr. Tarun Goswami
- Dr. Thomas Hangartner
- Dr. Amy Hillard
- Dr. David Hopkins
- Dr. George Huang
- Ms. Sarah Jackson
- Mr. Glen Jones
- Dr. Gary LeRoy
- Dr. Lok Chong Lew Yan Voon
- Dr. Yi Li
- Dr. Henry Limouze
- Mr. John Mackay
- Dr. Sharmila Mukhopadhyay
- Dr. S. Narayanan
- Ms. Emily Polander
- Dr. Lawrence Prochaska
- Ms. Ellen Riensche Freise
- Ms. Rebecca Riffle
- Dr. Mateen Rizki
- Dr. Thaddeus Tarpey
- Dr. Kenneth Turnbull
- Ms. Amber Vlasnik
- Dr. Dan Voss
- Dr. Juanita Wehrle-Einhorn
- Dr. Kefu Xue
- Dr. Kelli Zaytoun

**Other Institutions**
- Dr. Diana Bilimoria, External Advisor, *Case Western Reserve University*
- Dr. Wayne Jones, External Advisor, *University of Michigan*
- Ms. Christa Smith, External Evaluation, *Kansas State University*
### December 2011 — LEADER Events

<table>
<thead>
<tr>
<th>Sun</th>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thu</th>
<th>Fri</th>
<th>Sat</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>6</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

This month at *The Daily Grind*: 

*Academic Juggling Acts: So Many Roles, So Little Time!*  
Give yourself a break. No really, take a coffee break and join your colleagues in a discussion of strategies for managing the multiple demands of academic life. Coffee and refreshments are on us!

<table>
<thead>
<tr>
<th>11</th>
<th>12</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 – 11am The Daily Grind - WSU Meeting</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 – 1:30pm The Daily Grind - UD Meeting; 2:30 – 4pm The Daily Grind – AFIT Meeting</td>
<td></td>
</tr>
<tr>
<td>9:30 – 11am The Daily Grind - CSU Meeting</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>16</th>
<th>17</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td>26</td>
<td>27</td>
</tr>
<tr>
<td>28</td>
<td>29</td>
</tr>
<tr>
<td>30</td>
<td>31</td>
</tr>
</tbody>
</table>

---

Save the Date:

**March 8, 2012—Keys to Academics’ Success: Policies & Practices.** UD. A day-long mini-conference for upper-administrators, Deans, and Dept. Chairs. Presentations will include: Dr. Diana Billimoria, Case-Western Reserve University and Dr. Patricia Devine, University of Wisconsin, Madison. Information coming soon!

**April 12, 2012—Keys to Academics’ Success: Faculty Development.** CSU. A day-long mini-conference for all Consortium faculty and administrators. Annual STEM Luncheon & Keynote Speaker, Dr. Donna J. Dean, former President of AWIS and author of *Getting the Most Out of Your Mentoring Relationships: A Handbook for Women in STEM*. Plus faculty development workshops and much more!

Wouldn’t You Like to be a LEADER Too?

The LEADER Consortium is developing a number of policy initiatives, programs and activities. Participation and inclusivity are key to our values and mission, and to that end, we welcome participation and suggestions from across the academy.

Lend your talents and be a leader for equity in the academy by joining a committee, suggesting programs/events, or just voicing your concerns. We’re here to help you make a difference. For more information, contact the LEADER Office at: leader@wright.edu.

---

Contact the Consortium

Stephanie A. Goodwin, Ph.D.  
Program Director  
LEADER Consortium  
3640 Colonel Glenn Hwy.  
Dayton, OH 45435  
Phone: 937-775-4517  
E-mail: leader@wright.edu