CNS Outstanding Award Winners

- Outstanding Research
  Michele Cooke – Geosciences
  Thomas Maresca – Biology

- Outstanding Teaching
  Daeyoung Kim – Mathematics & Statistics
  Caleb Rounds – Biology

- Outstanding Service & Engagement
  Pat Wadsworth – Biology
CNS Outstanding Award Winners

• Outstanding Staff
  *John Maher* – Biochemistry & Molecular Biology
  *Ilona Trousdale* – Mathematics & Statistics
  *Martha Sylvia* – Cranberry Station

• Outstanding Advising
  *Lori Astheimer* – Psychological & Brain Sciences

• Excellence in Diversity & Inclusion
  *Gerald Downes* – Biology
  *Christie L.C. Ellis* – Chemistry
  *Raquel Bryant* – Geosciences
Mahoney Life Sciences Prize

- Awarded annually to one faculty member who has demonstrated excellence in applied life sciences research, and whose work significantly advances connections between academic research and industry.

Mahoney Prize 2018 Recipient
Jeanne Hardy
Associate Professor, Department of Chemistry

CNS Leadership

- **Elizabeth Connor**  Associate Dean for Undergraduate Education and Development
- **Chelsea Gwyther**  Assistant Dean of Advancement
- **Peter Holden**  Associate Dean for Administration and Finance
CNS Dean’s Office

- Candice Pinault Novak  Director of Communications
- Vannoch Sin  Director of Human Resources
Astronomy
Astronomy

• Daniela Calzetti Department head

Ace of the ‘golden age’ gives back

The ‘galactic ecosystem’ at the Milky Way’s center
Biochemistry and Molecular Biology
Biochemistry and Molecular Biology

- **Laura Danai** Lecturer

- **ChangHui Pak** Assistant Professor
Biology

- **Benjamin Normark** Department chair
- **Amber Davis** Director of Administration and Finance
- **Michelle Facette** Assistant Professor
- **Karine Fenelon** Assistant Professor
- **Stephanie Padilla** Assistant Professor
- **Rachid Skouta** Research Assistant Professor
Chemistry

• Tais Labrador Visiting Assistant Professor
• Philip Shivokevich Visiting Assistant Professor
• Rachid Skouta Lecturer
• Sravan Surampudi Lecturer
Environmental Conservation
Environmental Conservation

- **Kristina Bezanson** Lecturer
- **Katherine Kahl** Extension Assistant Professor
- **Lisa Komoroske** Assistant Professor
Food Science

• John Gibbons Assistant Professor

• Matthew Moore Assistant Professor

• Alissa Nolden Assistant Professor
Geosciences

- **Justin Richardson** Assistant Professor
- **Matthew Winnick** Assistant Professor
Mathematics and Statistics
Mathematics and Statistics

- Siddhant Agrawal Visiting Assistant Professor
- Panagiota Birmpa Visiting Assistant Professor
- Laura Colmenarejo Hernando Visiting Assistant Professor
- Maria de Fatima Corriea Lecturer
- Owen Gwilliam Assistant Professor
- Belgin Korkmaz Lecturer
- Kuan-Wen Lai Visiting Assistant Professor
Mathematics and Statistics

- Annie Raymond Assistant Professor
- Jonathan Simone Visiting Assistant Professor
- Zahra Sinaei Visiting Assistant Professor
- Zheni Utic Visiting Assistant Professor
- Brian Van Koten Assistant Professor
- Mark Wilson Visiting Assistant Professor
- Jiayu Zhai Visiting Assistant Professor
Microbiology
Microbiology

- **Timothy Daly** Laboratory Technician II
- **Jaishree Garhyan** Postdoctoral Research Associate
- **Paul Killinger** Clerk III
- **Jennifer Prescott** Clerk III
- **Fumiko Ribbe** Laboratory Technician II
- **John Uhrig** Postdoctoral Research Associate
- **David Walker** Senior Research Fellow
Physics

• Benjamin Heidenreich Assistant Professor

• Jordy de Vries Assistant Professor

• Shuang Zhou Assistant Professor
Polymer Science and Engineering
Polymer Science and Engineering

- Reika Katsumata Assistant Professor
Psychological and Brain Sciences
Psychological and Brain Sciences

- Tara Mandalaywala Assistant Professor
- Bruna Martins Assistant Professor
- Evelyn Mercado Assistant Professor
- Allecia Reid Assistant Professor
- Danielle Samuels Lecturer
- Amanda Sundberg Hamel Lecturer
Stockbridge School of Agriculture

• Lisa DePiano Lecturer

• Olga Kostromytska Extension Assistant Professor

• Jaime Piñero Extension Associate Professor
Veterinary and Animal Sciences
Veterinary and Animal Sciences

Coveralls, boots, stethoscopes

'Ray of Hope' breast cancer registry reaches milestone
Thank you!
UMass Amherst – Innovation and Impact

Mission:
Create positive impact on the Commonwealth and broader society
Momentum to Top 20

College of Natural Sciences - Mission

- Fostering Scientific Discovery
- Disseminating Knowledge of these Discoveries
- Providing a Rigorous and Innovative Scientific Education
Education

- **Undergraduate Students**
  - 6,818 total
  - 1,719 new

- **Graduate Students**
  - 778 total
  - 262 new

- **2017-2018 Degrees Conferred: 1,902**
  - 36 Associate, 1,609 Bachelor’s, 150 Master’s, 107 PhD
Outreach

>68 K took classes with Nutrition Ed Program

> 60 K contacts with Agricultural Industry

Since 2013, ~30 students/year

>300 UMass faculty, staff and students

+12% increase interest in 4 yr college
Research

Sponsored Projects

$81.9m
(+54% over FY17)
CNS Revenue History

$181.9m
(+19% over FY17)
New Investments

- **$0.7m Budget Reduction**
- **$1.1m Strategic Investments**

Space

- **$8.1m Research Space**
- **$1.6m Teaching Labs**

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>TT Faculty Hires</td>
<td>31%</td>
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<tr>
<td>NTT Faculty Hires</td>
<td>10%</td>
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<tr>
<td>TAs</td>
<td>23%</td>
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<tr>
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<tr>
<td>Staff</td>
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<tr>
<td>non-base</td>
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<table>
<thead>
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<th>Category</th>
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</thead>
<tbody>
<tr>
<td>Buildings/Floors</td>
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<tr>
<td>Research</td>
<td>5%</td>
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<tr>
<td>Misc</td>
<td>1%</td>
</tr>
<tr>
<td>Teaching</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>7%</td>
</tr>
</tbody>
</table>
Development

- **Alumni**: 28%
- **Friends**: 4%
- **Bequests**: 13%
- **Organizations**: 55%

**Buildings and Infrastructure**: 1%
**Faculty**: 11%
**Annual Fund**: 5%
**Research and Programs**: 59%
**Students**: 24%

- $11.1m Gifts (+22% of Goals)
- $110K from faculty and staff
Path to Success

Opportunities

Responsibilities

Work Together
Reach Full Potential
Destination of Choice

- Attract and retain outstanding students
- Support student success
- Expand support for career development
Destination of Choice:
Student retention and time to degree

- Efficiency and effectiveness
- Resource allocation
- UG engagement programs

- Data analytics and assessment
- Experiential learning
Partner of Choice

- Expand research and scholarly impact
- Strengthen graduate education
- Expand outreach and engagement
Partner of Choice:
Support and facilitation

- Advocate on campus
- Increase visibility
- Best practices

- Bridge/seed funding
- Strategic planning
- Recognition
- Data analytics and assessment
- Fellowships, career development
Community of Choice

• Build a more diverse and inclusive community
• Improve campus climate
• Organize for success
Community of Choice: Engagement and awareness

- Website
- Climate committees
- Retreats
- Strategic plan
- Awards
- Training
- Hiring
- Data analytics and assessment
Community of Choice: Leadership

Inclusive Excellence in STEM Education
Elizabeth Connor, Tracie Gibson, Gabriela Weaver, Jennifer Normanly, Randy Phillis

ADVANCE: Organizational Change for Equity in STEM Academic Professions
Anna Branch, Joya Misra, Buju Dasgupta, Jennifer Normanly, James Allan, David McLaughlin, Gabriela Weaver
Path to Success

Engage

Advocate

Facilitate
Naturally Diverse

Picture a mathematician. Now be pleasantly surprised.

A ‘multi-layered’ approach to diversifying science

Big-impact research—and researchers

CNS receives $1 million to enhance STEM learning, increase inclusivity
2018-19 FACULTY AND STAFF CAMPAIGN

269 : 08 : 42 : 33
DAYS HRS MIN SEC

GIVE

$358,972 RAISED  420 DONORS
SNAPSHOT 2018-2019

DEGREE PROGRAMS
6 AS programs
33 BS and BA programs
39 MS and PhD programs

PEOPLE
306 Tenure system faculty
104 Lecturers
43 Research and extension faculty
7,229 Undergraduate students
1,013 Graduate students

REVENUE SOURCES FY2018
Revenues generated $17.51M
Gifts $11.60M
State appropriations $70.85M
Sponsored research $81.94M
TOTAL REVENUE $181.90M

DEPARTMENTS and SCHOOLS
Astronomy
Biochemistry and Molecular Biology
Biology
Chemistry
Environmental Conservation
Food Science
Geosciences
Mathematics and Statistics
Microbiology
Physics
Polymer Science and Engineering
Psychological and Brain Sciences
School of Earth and Sustainability
Stockbridge School of Agriculture
Veterinary and Animal Sciences

CENTER for AGRICULTURE,
FOOD and THE ENVIRONMENT
UMass Extension
Massachusetts Agricultural Experiment Station
Water Resources Research Center
Research and education farms in Belchertown,
Hadley, South Deerfield, and Wareham, MA

INDUSTRY PARTNERSHIPS
Center for UMass-Industry on Polymers
Food Science Strategic Research Alliance

INTERDISCIPLINARY PROGRAMS
UNDERGRADUATE
Environmental Science
iCons (Integrated Concentration in Science)

GRADUATE
Molecular and Cellular Biology
Neuroscience and Behavior
Organismic and Evolutionary Biology
Plant Biology
Sustainability Science
RESEARCH CENTERS

AMHERST CENTER for FUNDAMENTAL INTERACTIONS
Advances research in theoretical and experimental physics at the interface of the energy, intensity, and cosmic frontiers.

CENTER for APPLIED MATHEMATICS and COMPUTATION
Focuses on research and education in applied and computational mathematics.

CENTER for EVOLUTIONARY MATERIALS
Focuses on evolutionary materials research and education.

CENTER for HIERARCHICAL MANUFACTURING
Develops nanostructured materials for next-generation devices for information processing, energy conversion, and human health.

CENTER for NEUROENDOCRINE STUDIES
Researches the relationships between the brain and hormones, physiology, and behavior.

CENTER for RESEARCH on FAMILIES
Supports natural, social, and behavioral sciences research on issues relevant to families.

CLIMATE SYSTEM RESEARCH CENTER
Studies the climate system, climatic variability, and global change, spanning contemporary to paleoclimatic and paleoenvironmental changes.

FAMILY FOREST RESEARCH CENTER
Studies the social, political, and economic dimensions of family forest ownership.

FERGUS M. CLYDESDALE CENTER for FOODS for HEALTH and WELLNESS
Unites scientists, government agencies, and industry to identify solutions to food-related health issues.

THE INITIATIVE on NEUROSCIENCES
Provides an umbrella for the many faces of Neuroscience on campus.

THE INSTITUTE for DIVERSITY SCIENCES
Brings together faculty and students whose research focuses on equity or human diversity from multiple intellectual angles.

INSTITUTE for MASSACHUSETTS BIOFUELS RESEARCH
Develops cost-effective technologies to produce ethanol and other alternative fuels from biomass.

LARGE MILLIMETER TELESCOPE
A collaboration between UMass Amherst and Mexico; collects data from distant galaxies using the world’s largest single-dish telescope operating at millimeter wavelengths.

MASS CAM: CENTER for AUTONOMOUS MATERIALS
Offers interdisciplinary expertise at the interface between soft, biological materials and quantum-mechanical, electronic materials to develop a new paradigm of electronics manufacturing.

NORTHEAST CLIMATE ADAPTATION SCIENCE CENTER
A collaboration of seven institutions that provides climate science tools and information for natural and cultural resource managers across the Northeast United States.

RESEARCH FORESTS
Improving forest conservation in order to better meet the current and future needs of forest owners and society.

WATER RESOURCES RESEARCH CENTER
Supports interdisciplinary research, education, and outreach efforts on water resources issues of state, regional, and national importance.