**Update on Faculty Hiring**

### Successful AY 2016-17 Searches

<table>
<thead>
<tr>
<th>Unit</th>
<th>Candidate</th>
<th>Rank</th>
<th>Start Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCB</td>
<td>Leslie, J. Michelle</td>
<td>LPSOE</td>
<td>7/1/2017</td>
</tr>
<tr>
<td>CCB</td>
<td>Nguyen, Son</td>
<td>Assistant Professor</td>
<td>7/1/2017</td>
</tr>
<tr>
<td>MATH</td>
<td>Theillard, Maxime</td>
<td>Assistant Professor</td>
<td>7/1/2017</td>
</tr>
<tr>
<td>MATH</td>
<td>Carvalho, Camille</td>
<td>Assistant Professor</td>
<td>7/1/2018</td>
</tr>
<tr>
<td>MCB</td>
<td>Grasis, Juris</td>
<td>Assistant Professor</td>
<td>1/1/2018</td>
</tr>
<tr>
<td>MCB</td>
<td>Amemiya, Chris</td>
<td>Professor</td>
<td>9/1/2017</td>
</tr>
<tr>
<td>LES</td>
<td>Kim, Sora</td>
<td>Assistant Professor</td>
<td>7/1/2018</td>
</tr>
<tr>
<td>LES</td>
<td>Ryals, Rebecca</td>
<td>Assistant Professor</td>
<td>1/1/2018</td>
</tr>
<tr>
<td>LES</td>
<td>Bennett, Gordon</td>
<td>Assistant Professor</td>
<td>1/1/2018</td>
</tr>
</tbody>
</table>

### AY 2016-17 Foundational Searches Carried Forward

<table>
<thead>
<tr>
<th>Unit</th>
<th>Rank</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH</td>
<td>Visiting Asst Prof</td>
<td>Two VAPs; Chair, Mayya Tokman</td>
</tr>
<tr>
<td>CCB</td>
<td>Assistant Professor</td>
<td>Open/Close: 8/23/2017 – 10/15/2017; Chair, Mike Colvin</td>
</tr>
<tr>
<td>MATH</td>
<td>Assistant Professor</td>
<td>Open/Close: 9/1/2017 – 11/1/2017; Chair, Francois Blanchette</td>
</tr>
<tr>
<td>CCB</td>
<td>Assistant Professor</td>
<td>On hold until AY 2018-19</td>
</tr>
<tr>
<td>MCB</td>
<td>Assistant Professor</td>
<td>MCB Unit to decide</td>
</tr>
</tbody>
</table>

3 AY 2016-17 SAFI Searches in Process – 2 in Physics, 1 in MCB
Welcome to Our New Faculty!

Maxime Theillard
Assistant Professor
Applied Mathematics
Applied Mathematics: Recent Accomplishments

- **Hosted** the second “Central Valley Regional SIAM Student Chapter Conference”
- **Harish Bhat** – NSF Grant
- **Roummel Marcia** – NSF Grant
- **Noemi Petra** – NSF Career Award, NSF, SIAM Grants
- **Suzanne Sindi** – NSF (2), Army, NIH Grants
- **Mayya Tokman** – NSF Grant
- **Arnold Kim** – AFOSR Grant
Welcome to our New Faculty!

Son Nguyen
Assistant Professor
Chemistry & Chemical Biology
Welcome to our New Faculty!

Michelle Leslie
LPSOE
Chemistry & Chemical Biology

- Clockwise from top left: fresco making (calcium carbonate chemistry), soap making (lead soap formation in oil paintings), Prussian blue painting (precipitation reactions), “silver” and “gold” pennies (metal alloys).
Chemistry and Chemical Biology: Recent Accomplishments

- **Andy LiWang** published a full length research article in Science. Also received $2.9M in grants from NIH, Army, and AFOSR.
- **Anne Kelley** is this year's chair of the APS Division of Laser Science.
- **David Kelley** received a $350,000 DOE grant.
- **Hrant Hratchian** received a Hellman Faculty Fellowship.
- **Erik Menke** and **Hrant Hratchian** received CETL teaching fellowships.
- **Christine Isborn**, **Hrant Hratchian**, and **Ben Stokes** placed postdocs in tenure-track faculty positions.
Welcome to our New Faculty!

Chris Amemiya
Professor
Molecular Cell Biology
Molecular Cell Biology: Recent Accomplishments

- **Clarissa Nobile, Katrina Hoyer, Aaron Hernday** – award UC Multicampus Research Programs and Initiatives (MRPI) grant to study Valley Fever
- **Clarissa Nobile** – NIGMS R35 Grant, NIH Grant
- **Rudy Ortiz** - USDA/NIFA Hispanic-Serving Institutions (HSI) Education Grant
Life and Environmental Sciences: Recent Accomplishments

- **Asmeret A. Berhe** – NSF ADVANCE Grant
- **Jessica Blois** – NSF Grant (paleobiology)
- **Mike Dawson** – NSF Grants (2)
- **Steve Hart** – co-author on Nature Communications paper (dust)
- **Jay Sexton** – US Fish and Wildlife Service Grant (vernal pools)
- **Post-doc Awards:**
  - **Fernanda Santos** – UCM Chancellor’s Postdoc (mentor: A. Berhe)
  - **Marie-Claire Chelini** – UC President’s Postdoc (mentors: D. Edwards & C. Frank)
Physics: Recent Accomplishments

- **Bin Liu** – Awarded his first NSF Grant
- **Lin Tian** – NSF Grant
- **Linda Hirst** – Senate Award for Distinction in Research
- **Roland Winston** – UCOP Grant for UC Solar Institute
- **UCM** will host APS Far West Section Conference Nov 3-4
Update on Work Groups

**Academic Reorganization**
- Gregg Camfield, (co-chair), Vice Provost for the Faculty
- Paul Maglio, (co-chair), Professor, School of Engineering
- Marjorie Zatz, Vice Provost and Dean, Graduate Division
- Betsy Dumont, Dean, School of Natural Sciences
- Jason Beaster-Jones, Associate Professor, AP Chair, SSHA
- Hrant Hratchian, Assistant Professor, Member of Graduate Council
- Rebecca Smith, staff, SSHA

**Academic Planning**
- Tom Peterson, (Co-chair), Provost and Executive Vice Chancellor
- Susan Amussen, (co-chair), Chair Academic Senate
- Elizabeth Whitt, Vice Provost and Dean, Undergraduate Education
- Haipeng Li, University Librarian
- Holley Moyes, Acting Dean, SSHA
- Mike Colvin, Professor, CAPRA Rep
- Teamrat Ghezzehei, Associate Professor, Chair of Grad Council
- Martha Conklin, Professor, Chair of SoE Executive Committee
- Sarah Depaoli, Associate Professor, Undergrad Chair for Psychology
- Alisha Kimble, Assistant Dean, Undergraduate Education

**Budget Planning**
- Veronica Mendez, (co-chair), Interim Vice Chancellor, Planning and Budget
- Kurt Schnier (co-chair), Professor, Vice Chair, Academic Senate
- Mark Matsumoto, Dean, School of Engineering
- Sam Traina, Vice Chancellor, Office of Research and Econ Dev
- Maria Tinoco, staff, Grad Div
- Leroy Westerling, Associate Professor, Vice Chair Grad Council
- Anne Zanzucchi, LSOE/Chair of Undergraduate Council
- Michael Scheibner, Associate Professor and Member of Committee on Research
- Mukesh Singhal, Professor, Chair of CAPRA

http://provostevc.ucmerced.edu/councils-committees
Update on UC Path

For the UC System…

- Single Solution to streamline payroll, benefits, human resources, academic personnel, and timekeeping into a central system
- Replacement of Legacy Payroll Systems (PPS)

For UC Merced…

- The starting point of our commitment to modernizing business systems and processes
- Partnership opportunity for BFSI, APO, and Schools to design simple, clear, and intuitive personnel processes

For the School of Natural Sciences…

- Payroll requests will take longer during transition
- There will be limited ability to fulfill retroactive payroll requests
- Once UCPath is fully built-out, it may support easier effort and budget reporting

Want more information on UCPath?
UCPath.ucmerced.edu | ucpath@ucmerced.edu

Want to engage in modernizing systems?
BFSI | jmartin22@ucmerced.edu
Update on 2020

Lead: Maggie Saunders
Director of Space Planning and Analysis
Challenges in Public Higher Education

- Decreasing state and federal resources.
- Increasing cost of education.
- Connecting education and employment.
- Keeping pace with shifts in enrollment.
- Fostering diversity.
- Demonstrating the “value” of public higher education.
Broad Goals for Natural Sciences at UC Merced

1. Continue to Build and Sustain Excellence in Research
2. Deliver a High-quality, Affordable, and Relevant Science & Math Education
3. Advance Diversity, Inclusion, and Access
4. Continued Community Engagement
5. Raise Public Profile and Develop Relationships

Tools: Commitment, Collaboration, Transparency, Data-informed planning and assessment, Relationships with community, Leverage Communications and Development
1. Building and Maintaining Excellence in Research

- Quality of publications
- Influence in field
- Awards & Recognition
- Reputation
- Funding

"I don’t believe I’ve ever seen a scientific paper defended quite as vigorously as this one!"
1. Building and Maintaining Excellence in Research

Per-capita analysis
(PC1 Loadings; 71% of the total variance)
- Per-capita S&E R&D Expenditures: 0.931
- Per-capita Research Staff: 0.928
- Per-capita Non-S&E R&D Expenditures: 0.614

Aggregate analysis
(PC1 Loadings; 70% of total variance)
- Doctorates: STEM: 0.914
- Research Staff: 0.902
- S&E R&D Expenditures: 0.900
- Doctorates: Social Sciences: 0.873
- Doctorates: Humanities: 0.819
- Non-S&E R&D Expenditures: 0.791
- Doctorates: Other Fields: 0.616
# 1. Building and Maintaining Excellence in Research

## Models for the Path to R1

<table>
<thead>
<tr>
<th>Enrollment</th>
<th>STEM PhDs</th>
<th>Research Staff</th>
<th>STEM Research Expenditures ($1,000s)</th>
<th>Social Science PhDs</th>
<th>Humanities PhDs</th>
<th>Non-STEM Research Expenditures ($1,000s)</th>
<th>FT Ladder-Rank Faculty</th>
<th>R&amp;D Expenditures/Ladder-Rank Faculty ($1,000s)</th>
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</thead>
<tbody>
<tr>
<td>Spring '17</td>
<td>7,967</td>
<td>33</td>
<td>$22,612</td>
<td>2</td>
<td>6</td>
<td>$1,304</td>
<td>166</td>
<td>$144</td>
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<tr>
<td>Models</td>
<td>stable</td>
<td>33</td>
<td>$67,836</td>
<td>2</td>
<td>6</td>
<td>$3,912</td>
<td>166</td>
<td>$432</td>
</tr>
<tr>
<td></td>
<td>stable</td>
<td>33</td>
<td>$90,448</td>
<td>2</td>
<td>6</td>
<td>$5,216</td>
<td>166</td>
<td>$576</td>
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<tr>
<td>15,000</td>
<td>79</td>
<td>178</td>
<td>$121,949</td>
<td>5</td>
<td>14</td>
<td>$7,033</td>
<td>397</td>
<td>$325</td>
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<tr>
<td>15,000</td>
<td>79</td>
<td>211</td>
<td>$144,561</td>
<td>5</td>
<td>14</td>
<td>$8,337</td>
<td>397</td>
<td>$385</td>
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<tr>
<td>20,000</td>
<td>105</td>
<td>204</td>
<td>$139,987</td>
<td>6</td>
<td>19</td>
<td>$8,073</td>
<td>530</td>
<td>$279</td>
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<tr>
<td>20,000</td>
<td>105</td>
<td>237</td>
<td>$162,599</td>
<td>6</td>
<td>19</td>
<td>$9,377</td>
<td>530</td>
<td>$324</td>
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<tr>
<td>25,000</td>
<td>132</td>
<td>231</td>
<td>$158,024</td>
<td>8</td>
<td>24</td>
<td>$9,113</td>
<td>662</td>
<td>$252</td>
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<tr>
<td>25,000</td>
<td>132</td>
<td>264</td>
<td>$180,636</td>
<td>8</td>
<td>24</td>
<td>$10,417</td>
<td>662</td>
<td>$289</td>
</tr>
</tbody>
</table>
1. Building and Maintaining Excellence in Research

Doctoral Degrees Conferred

Postdoc Scholars and Professional Researchers

- SNS
- SoE
- SHHA
1. Building and Maintaining Excellence in Research

2016-17 SNS New Awards by Sponsor Type *

* New awards for which SNS faculty member was primary PI.

- Federal Agency: $3,988,225
- UC-Sponsored: $748,219
- Business/For-Profit: $723,126
- Non-Profit: $435,156
- State Agency: $191,936

Total New Awards: $6,086,662
1. Building and Maintaining Excellence in Research

SNS Contract & Grant Expenditures

<table>
<thead>
<tr>
<th>FY</th>
<th>Federal Contracts &amp; Grants</th>
<th>Private Contracts, Grants &amp; Gifts</th>
<th>State Contracts &amp; Grants</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2013</td>
<td>232,410</td>
<td>96,294</td>
<td>4,018,434</td>
</tr>
<tr>
<td>FY 2014</td>
<td>25,071</td>
<td>328,457</td>
<td>3,832,735</td>
</tr>
<tr>
<td>FY 2015</td>
<td>2,992</td>
<td>811</td>
<td>4,697,928</td>
</tr>
<tr>
<td>FY 2016</td>
<td>798,584</td>
<td>3,505,924</td>
<td>4,397,565</td>
</tr>
<tr>
<td>FY 2017</td>
<td>26,306</td>
<td>843,156</td>
<td>232,410</td>
</tr>
</tbody>
</table>

FY 2017 (≈ 5.3M)
1. Building and Maintaining Excellence in Research

Per-capita analysis (PC1 Loadings; 71% of the total variance)
- Per-capita S&E R&D Expenditures: 0.931
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- Doctorates: Other Fields: 0.616
1. Building and Maintaining Excellence in Research
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Faculty

• Balance academic breadth and depth.

• Anticipate new areas of research and explore them through Center and Institute grants.

• Nurture collaborations on and off-campus.

• Support – pre and post-award support, regular feedback & mentoring for early and mid-career faculty, mentorship in grant writing & management, writing groups, management & leadership training

• Embrace the benefits of diversity
Graduate Education

• Top-notch research can’t happen without top-notch graduate students and postdocs.

• Competition for the top graduate students is stiff. They need to be courted and supported.

• The most valuable graduate training is well-aligned with job markets.
1. Building and Maintaining Excellence in Research

Graduate Education

- Top-notch research can’t happen without top-notch graduate students and postdocs.
- Competition for the top graduate students is stiff. They need to be courted and supported.
- The most valuable graduate training is well-aligned with job markets.
1. Building and Maintaining Excellence in Research

Staff

- The backbone of the university
- Goals: streamline business practices, clarify roles and responsibilities, more cross-training
- Professional development
- Opportunities for advancement
2. Delivering a High-quality, Relevant Science & Math Education.

Critical thinking, problem solving, and communication.

Contribute to a well-informed public.

Practical skill sets.
2. Delivering a High-quality, Relevant Science & Math Education.

What students want:

A good job.

Acceptance into a graduate or professional school.

Excellent education with minimal debt.
2. Delivering a High-quality, Relevant Science & Math Education.

Expected graduation rates are calculated the subset of all UC students matched with UCM students for residence, gender, 1st generation status, race/ethnicity, Pell status, SAT scores, high school GPA, and college credit earned prior to matriculation.
2. Delivering a High-quality, Relevant Science & Math Education.

**Expected graduation rates** are calculated the subset of all UC students matched with UCM students for residence, gender, 1st generation status, race/ethnicity, Pell status, SAT scores, high school GPA, and college credit earned prior to matriculation.
2. Delivering a High-quality, Relevant Science & Math Education.
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Student Credit Hours by Course Level and Senate Affiliation
School of Natural Sciences
2012-13 to 2016-17

- Non-senate Faculty (38)
- Senate Faculty (65)
- Non-senate Faculty (42)
- Senate Faculty (63)
- Non-senate Faculty (38)
- Senate Faculty (62)
- Non-senate Faculty (39)
- Senate Faculty (52)
- Non-senate Faculty (35)
- Senate Faculty (55)
2. Delivering a High-quality, Relevant Science & Math Education.

What students want:

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## Job Projections (not degree programs)

<table>
<thead>
<tr>
<th>Job Projections</th>
<th>New Jobs 2014-2024 in 1,000s</th>
<th>Growth Rate 2014-2024</th>
<th>Projected Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary, middle &amp; secondary teachers</td>
<td>838.2</td>
<td>5.8</td>
<td>56,870</td>
</tr>
<tr>
<td>Sales representatives (technical equipment)</td>
<td>95.4</td>
<td>6.9</td>
<td>78,980</td>
</tr>
<tr>
<td>Medical and clinical laboratory technologists</td>
<td>62.5</td>
<td>14</td>
<td>61,070</td>
</tr>
<tr>
<td>Environmental scientists, including health</td>
<td>39.3</td>
<td>10.7</td>
<td>68,910</td>
</tr>
<tr>
<td>Biological technicians</td>
<td>26.3</td>
<td>5.2</td>
<td>42,520</td>
</tr>
<tr>
<td>Chemists</td>
<td>22.4</td>
<td>2.6</td>
<td>73,740</td>
</tr>
<tr>
<td>Health educators</td>
<td>19.5</td>
<td>12.2</td>
<td>53,070</td>
</tr>
<tr>
<td>Occupational health and safety specialists</td>
<td>16.9</td>
<td>4</td>
<td>70,920</td>
</tr>
<tr>
<td>Geoscientists (except hydrologists &amp; geographers)</td>
<td>15</td>
<td>10.5</td>
<td>89,780</td>
</tr>
<tr>
<td>Actuaries</td>
<td>11.7</td>
<td>18.1</td>
<td>100,610</td>
</tr>
<tr>
<td>Conservation scientists</td>
<td>10.6</td>
<td>6.9</td>
<td>61,810</td>
</tr>
</tbody>
</table>

https://data.bls.gov/projections/occupationProj

2. Delivering a High-quality, Relevant Science & Math Education.
## 2. Delivering a High-quality, Relevant Science & Math Education.

Connecting undergraduate education to graduate careers.

<table>
<thead>
<tr>
<th>Job Projections</th>
<th>New Jobs 2014-2024 in 1,000s</th>
<th>Growth Rate 2014-2024</th>
<th>Projected Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational, guidance, school, and vocational counselors</td>
<td>79.7</td>
<td>8.2</td>
<td>54,560</td>
</tr>
<tr>
<td>Occupational therapists</td>
<td>52.6</td>
<td>26.5</td>
<td>81,910</td>
</tr>
<tr>
<td>Physician assistants</td>
<td>50</td>
<td>30.4</td>
<td>101,480</td>
</tr>
<tr>
<td>Rehabilitation counselors</td>
<td>36</td>
<td>9</td>
<td>34,670</td>
</tr>
<tr>
<td>Health diagnosing and treating practitioners</td>
<td>17.7</td>
<td>12</td>
<td>74,530</td>
</tr>
<tr>
<td>Statisticians</td>
<td>15.4</td>
<td>33.8</td>
<td>80,500</td>
</tr>
<tr>
<td>Orthotists and prosthetists</td>
<td>2.7</td>
<td>22.6</td>
<td>65,630</td>
</tr>
<tr>
<td>Epidemiologists</td>
<td>2.2</td>
<td>6.3</td>
<td>70,820</td>
</tr>
<tr>
<td>Mathematicians</td>
<td>1.3</td>
<td>21.4</td>
<td>105,810</td>
</tr>
<tr>
<td>Genetic counselors</td>
<td>1.2</td>
<td>28.8</td>
<td>74,120</td>
</tr>
</tbody>
</table>
3. Advancing Diversity, Inclusion, and Access
3. Advancing Diversity, Inclusion, and Access

**Faculty** – bring diversity to search, hiring, and merit review processes (Faculty Equity Advisors); mentoring for early and mid-career faculty; regular feedback for all faculty.

**Students** – support existing programming through Office of Campus Compliance, use data to identify barriers to success and collaborate across campus to mitigate them.

**Staff** – continue to fold diversity into search, hiring, and performance review.
4. Raise Public Profile and Develop Relationships

Princeton Review Lists UC Merced Among Top Green Colleges

The Verge: These microscopic tubes may one day help turn seawater to drinking water.
Alex Noy & Yun-Chiao Yao (MCB, QSB) 8/24/17

The Conversation: Can the study of epigenomics lead to personalized cancer treatment?
Fabian Fillipp (CCB) 4/3/17

National Geographic: Starfish Baby Boom Surprises Biologists.
Michael Dawson & Lauren Schiebelhut (LES, QSB) 8/24/17

Chronical of Higher Ed, 9/22/17
4. Raise Public Profile and Develop Relationships

Jason Alvarez
Science and Health Writer
University Communications
Email: jalvarez78@ucmerced.edu
Phone: (209) 228-4483
Mobile: (310) 740-6435

Molly Elazier
Dean’s Assistant
School of Natural Sciences
Email: melazier@ucmerced.edu
Phone: (209) 228-2969
4. Raise Public Profile and Develop Relationships

<table>
<thead>
<tr>
<th>Support Type</th>
<th>Amount Raised</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Chairs</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Student Support</td>
<td>$453,915</td>
</tr>
<tr>
<td>Program Support / Research</td>
<td>$1,338,484</td>
</tr>
<tr>
<td>Grand Total</td>
<td>$2,726,118</td>
</tr>
</tbody>
</table>

SNS Donations since Inception

- Atul Roy Family Genome Center of Excellence
- Ted and Jan Falasco Chair in Earth Sciences and Geology
- Kamangar Family Chair in Biological Sciences
- E.W. and Dorothy Bizzini Endowed Chair in Biological Sciences
- Raymond and Julia Panfili Stem Cell Research Fund
- Minnie Andow CalTeach Scholarship Endowment Fund
- Ronald and Jacqueline Walker Health Science Research Fund
- UC Merced Stem Cell Fund
- Jefferson Jennings Doolittle Endowed Scholarship Fund
- UC Merced Donors Scholarship
- Jane Evans Vilas Biomedical Instrumentation Fund
- UC Merced Stem Cell Fund
- CalTeach Professional Development Summer Institute for Valley Teachers
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