

(updated March 2015)

## Nicole King

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### **RESEARCH FOCUS**

Choanoflagellates, origin and evolution of animal development, genome evolution, and host-microbe interactions.

### **EDUCATION AND POST-DOCTORAL TRAINING**

<b>University of Wisconsin</b>	Post-doctoral Fellow Mentor: Sean Carroll	2/2000 – 10/2003
<b>Harvard University</b>	A.M. in Molecular and Cellular Biology Ph.D. in Biochemistry Mentor: Richard Losick	6/1996 6/1999
<b>Indiana University</b>	B.S. in Biology Mentor: Thomas Kaufman	5/1992

### **ACADEMIC POSITIONS**

<b>Investigator, Howard Hughes Medical Institute</b>		2013 – present
<b>Professor, University of California, Berkeley</b>		2014 - present
<b>Associate Professor, University of California, Berkeley</b>		2010 – 2014
Department of Molecular and Cell Biology, Division of Genetics, Genomics and Development; Affiliate, Division of Cell and Developmental Biology; Affiliate, QB3-Berkeley; Center for Integrative Genomics Faculty, Graduate Group in Microbiology		
<b>Assistant Professor, University of California, Berkeley</b>		2003 - 2010
Department of Molecular and Cell Biology, Division of Genetics, Genomics and Development; Department of Integrative Biology; Center for Integrative Genomics		

### **HONORS AND FELLOWSHIPS**

2013	Investigator, Howard Hughes Medical Institute
2012	Senior Fellow, Canadian Institute for Advanced Research, Integrated Microbial Biodiversity Program
2007	Scholar, Canadian Institute for Advanced Research, Integrated Microbial Biodiversity Program
2005	MacArthur Fellow, John D. and Catherine T. MacArthur Foundation
2004	Pew Scholar in the Biomedical Sciences, Pew Foundation
2004	George A. Bartholomew Award in Comparative Physiology, Society for Integrative and Comparative Biology (SICB)
2004	Gordon and Betty Moore Foundation Young Investigator in Marine Science

- 2000 Postdoctoral Research Fellowship, National Institutes of Health
- 1993 Graduate Research Fellowship, National Science Foundation
- 1992 Fernandus and Elizabeth Payne Scholarship, Indiana University
- 1992 Phi Beta Kappa, Indiana University
- 1991 Honors Division Research Grant, Indiana University
- 1991 Undergraduate Initiative Research Grant, Howard Hughes Medical Institute and Indiana University

## **PUBLICATIONS**

[View up-to-date publication list in Google Scholar->](#)

1. Levin TC, Greaney AJ, Wetzel L, King N: **The rosetteless gene controls development in the choanoflagellate *S. rosetta***. *elife* 2014, **3**.
2. Alegado RA, King N: **Bacterial Influences on Animal Origins**. *Cold Spring Harb Perspect Biol* 2014.
3. Beemelmanns C, Woznica A, Alegado RA, Cantley AM, King N, Clardy J: **Synthesis of the rosette-inducing factor RIF-1 and analogs**. *J Am Chem Soc* 2014, **136**:10210–10213.
4. Dayel MJ, King N: **Prey capture and phagocytosis in the choanoflagellate *Salpingoeca rosetta***. *PLoS ONE* 2014, **9**:e95577.
5. Burkhardt P, Grønborg M, McDonald K, Suler T, Wang Q, King N: **Evolutionary insights into premetazoan functions of the neuronal protein Homer**. *Mol Biol Evol* 2014, **31**:2342–2355.
6. Richter DJ, King N: **The Genomic and Cellular Foundations of Animal Origins**. *Annu Rev Genet* 2013, **47**:527–555.
7. Levin TC, King N: **Evidence for sex and recombination in the choanoflagellate *Salpingoeca rosetta***. *Curr Biol* 2013, **23**:2176–2180.
8. McFall-Ngai M, Hadfield MG, Bosch TCG, Carey HV, Domazet-Loso T, Douglas AE, Dubilier N, Eberl G, Fukami T, Gilbert SF, Hentschel U, King N, Kjelleberg S, Knoll AH, Kremer N, Mazmanian SK, Metcalf JL, Neelson K, Pierce NE, Rawls JF, Reid A, Ruby EG, Rumpho M, Sanders JG, Tautz D, Wernegreen JJ: **Animals in a bacterial world, a new imperative for the life sciences**. *Proc Natl Acad Sci USA* 2013, **110**:3229–3236.
9. Sebé-Pedrós A, Burkhardt P, Sánchez-Pons N, Fairclough SR, Lang BF, King N, Ruiz-Trillo I: **Insights into the origin of metazoan filopodia and microvilli**. *Mol Biol Evol* 2013, **30**:2013–2023.
10. Fairclough SR, Chen Z, Kramer E, Zeng Q, Young S, Robertson HM, Begovic E, Richter DJ, Russ C, Westbrook MJ, Manning G, Lang BF, Haas B, Nusbaum C, King N: **Premetazoan genome evolution and the regulation of cell differentiation in the choanoflagellate *Salpingoeca rosetta***. *Genome Biol* 2013, **14**:R15.
11. Alegado RA, Grabenstatter JD, Zuzow R, Morris A, Huang SY, Summons RE, King N: **Algoriphagus machipongonensis sp. nov. co-isolated with a colonial choanoflagellate**. *Int J Syst Evol Microbiol* 2013, **63**:163–168.
12. Nichols SA, Roberts BW, Richter DJ, Fairclough SR, King N: **Origin of metazoan cadherin**

**diversity and the antiquity of the classical cadherin/ $\beta$ -catenin complex.** *Proc Natl Acad Sci USA* 2012, **109**:13046–13051.

13. Alegado RA, Brown LW, Cao S, Dermenjian RK, Zuzow R, Fairclough SR, Clardy J, King N: **A bacterial sulfonolipid triggers multicellular development in the closest living relatives of animals.** *elife* 2012, **1**:e00013.

14. Young SL, Diolaiti D, Conacci-Sorrell M, Ruiz-Trillo I, Eisenman RN, King N: **Premetazoan ancestry of the Myc-Max network.** *Mol Biol Evol* 2011, **28**:2961–2971.

15. Dayel MJ, Alegado RA, Fairclough SR, Levin TC, Nichols SA, McDonald K, King N: **Cell differentiation and morphogenesis in the colony-forming choanoflagellate *Salpingoeca rosetta*.** *Dev Biol* 2011, **357**:73–82.

16. Alegado RA, Ferriera S, Nusbaum C, Young SK, Zeng Q, Imamovic A, Fairclough SR, King N: **Complete genome sequence of *Algoriphagus* sp. PR1, bacterial prey of a colony-forming choanoflagellate.** *J Bacteriol* 2011, **193**:1485–1486.

17. Abedin M, King N: **Diverse evolutionary paths to cell adhesion.** *Trends Cell Biol* 2010, **20**:734–742.

18. King N: **Nature and nurture in the evolution of cell biology.** *Mol Biol Cell* 2010, **21**:3801–3802.

19. Fairclough SR, Dayel MJ, King N: **Multicellular development in a choanoflagellate.** *Curr Biol* 2010, **20**:R875–6.

20. Seb e-Pedr s A, Roger AJ, Lang FB, King N, Ruiz-Trillo I: **Ancient origin of the integrin-mediated adhesion and signaling machinery.** *Proc Natl Acad Sci USA* 2010, **107**:10142–10147.

21. Nichols SA, Dayel MJ, King N: **Genomic, phylogenetic, and cell biological insights into metazoan origins.** In *Animal Evolution: Genomes, Fossils, and Trees*. Edited by Littlewood DTJ, Telford MJ. Oxford University Press; 2009.

22. King N, Young SL, Abedin M, Carr M, Leadbeater BS: **Isolation of single choanoflagellate cells from field samples and establishment of clonal cultures.** *Cold Spring Harb Protoc* 2009, **2009**:pdb.prot5147.

23. King N, Young SL, Abedin M, Carr M, Leadbeater BSC: **Preparation of high-molecular-weight genomic DNA from *Monosiga brevicollis* and other choanoflagellates.** *Cold Spring Harb Protoc* 2009, **2009**:pdb.prot5153.

24. King N, Young SL, Abedin M, Carr M, Leadbeater BSC: **Preparation of total RNA from *Monosiga brevicollis* and other choanoflagellates.** *Cold Spring Harb Protoc* 2009, **2009**:pdb.prot5151.

25. King N, Young SL, Abedin M, Carr M, Leadbeater BSC: **Rapid preparation of genomic DNA from *Monosiga brevicollis* and other choanoflagellates.** *Cold Spring Harb Protoc* 2009, **2009**:pdb.prot5152.

26. King N, Young SL, Abedin M, Carr M, Leadbeater BSC: **Starting and maintaining *Monosiga brevicollis* cultures.** *Cold Spring Harb Protoc* 2009, **2009**:pdb.prot5148.

27. King N, Young SL, Abedin M, Carr M, Leadbeater BSC: **Visualizing the subcellular localization of actin, beta-tubulin, and DNA in *Monosiga brevicollis*.** *Cold Spring Harb Protoc*

2009, **2009**:pdb.prot5150.

28. King N, Young SL, Abedin M, Carr M, Leadbeater BSC: **Separation of choanoflagellate and bacterial genomic DNA.** *Cold Spring Harb Protoc* 2009, **2009**:pdb.prot5154.

29. Grimson A, Srivastava M, Fahey B, Woodcroft BJ, Chiang HR, King N, Degan BM, Rokhsar DS, Bartel DP: **Early origins and evolution of microRNAs and Piwi-interacting RNAs in animals.** *Nature* 2008, **455**:1193–1197.

30. Kodner RB, Summons RE, Pearson A, King N, Knoll AH: **Sterols in a unicellular relative of the metazoans.** *Proc Natl Acad Sci USA* 2008, **105**:9897–9902.

31. Li W, Young SL, King N, Miller WT: **Signaling properties of a non-metazoan Src kinase and the evolutionary history of Src negative regulation.** *J Biol Chem* 2008, **283**:15491–15501.

32. Abedin M, King N: **The premetazoan ancestry of cadherins.** *Science* 2008, **319**:946–948.

33. King N, Westbrook MJ, Young SL, Kuo A, Abedin M, Chapman J, Fairclough S, Hellsten U, Isogai Y, Letunic I, Marr M, Pincus D, Putnam N, Rokas A, Wright KJ, Zuzow R, Dirks W, Good M, Goodstein D, Lemons D, Li W, Lyons JB, Morris A, Nichols S, Richter DJ, Salamov A, Sequencing JGI, Bork P, Lim WA, Manning G, et al.: **The genome of the choanoflagellate *Monosiga brevicollis* and the origin of metazoans.** *Nature* 2008, **451**:783–788.

34. Ruiz-Trillo I, Burger G, Holland PWH, King N, Lang BF, Roger AJ, Gray MW: **The origins of multicellularity: a multi-taxon genome initiative.** *Trends Genet* 2007, **23**:113–118.

35. Nichols SA, Dirks W, Pearse JS, King N: **Early evolution of animal cell signaling and adhesion genes.** *Proc Natl Acad Sci USA* 2006, **103**:12451–12456.

36. Carniol K, Ben-Yehuda S, King N, Losick R: **Genetic dissection of the sporulation protein SpolIE and its role in asymmetric division in *Bacillus subtilis*.** *J Bacteriol* 2005, **187**:3511–3520.

37. King N: **Choanoflagellates.** *Curr Biol* 2005, **15**:R113–4.

38. King N: **The unicellular ancestry of animal development.** *Dev Cell* 2004, **7**:313–325.

39. Rokas A, Williams BL, King N, Carroll SB: **Genome-scale approaches to resolving incongruence in molecular phylogenies.** *Nature* 2003, **425**:798–804.

40. King N, Hittinger CT, Carroll SB: **Evolution of key cell signaling and adhesion protein families predates animal origins.** *Science* 2003, **301**:361–363.

41. Rokas A, King N, Finnerty J, Carroll SB: **Conflicting phylogenetic signals at the base of the metazoan tree.** *Evol Dev* 2003, **5**:346–359.

42. King N: **Comparative biology and genomics join forces to decipher the diversity of life.** *Genome Biol* 2002, **3**:REPORTS4023.

43. King N, Carroll SB: **A receptor tyrosine kinase from choanoflagellates: molecular insights into early animal evolution.** *Proc Natl Acad Sci USA* 2001, **98**:15032–15037.

44. King N, Dreesen O, Stragier P, Pogliano K, Losick R: **Septation, dephosphorylation, and the activation of sigma(F) during sporulation in *Bacillus subtilis*.** *Genes Dev* 1999, **13**:1156–1167.

45. Widmer J, Fassihi KS, Schlichter SC, Wheeler KS, Crute BE, King N, NutileMcMenemy N, Noll WW, Daniel S, Ha J, Kim KH, Witters LA: **Identification of a second human acetyl-CoA carboxylase gene.** *Biochem J* 1996, **316**:915–922.
46. Gindhart JG, King AN, Kaufman TC: **Characterization of the Cis-Regulatory Region of the Drosophila Homeotic Gene Sex Combs Reduced.** *Genetics* 1995, **139**:781–795.
47. Witters LA, Widmer J, King AN, Fassihi K, Kuhajda F: **Identification of Human Acetyl-Coa Carboxylase Isozymes in Tissue and in Breast-Cancer Cells.** *Int J Biochem* 1994, **26**:589–594.
48. Witters LA, Christensen A, Fassihi K, King AN, Widmer J, Quistorff B: **Application of dual-digitonin-pulse perfusion to the study of hepatic mRNA zonation.** *Biochem J* 1993, **294 ( Pt 3)**:809–812.

## **INVITED LECTURES**

### 2015

- Keynote speaker, Darwin Day Celebration, Washington University-St. Louis
- Department of Biology, Washington University-St. Louis
- Institute of Ecology and Evolution, University of Oregon (selected by grad students)
- Janelia Evolutionary Cell Biology Conference
- Vienna Biocenter
- Max Planck Institute (MPI) for Developmental Biology, Tuebingen, Germany
- 10th Anniversary Symposium of the Center for Integrative Genomics, University of Lausanne
- Gordon Research Conference on Molecular Mechanisms in Evolution
- Society for Molecular Biology and Evolution annual meeting, session on “The origins of multicellularity under the light of functional genomics”
- Faculty lecture, Physiology, Marine Biological Laboratory
- Kavli Institute for Theoretical Physics, The Course of Cellular Evolution, Santa Barbara Advanced School of Quantitative Biology
- University of Wisconsin-Madison, Department of Genetics
- Ohio State University, Department of Biology
- EMBO/EMBL Symposium in Microbiology, Heidelberg, Germany
- Max Planck Institute for Molecular Cell Biology and Genetics, Dresden, Germany

### 2014

- Pasteur Institute, eLife sponsored seminar
- International Titisee Conference on Microbiome-host mutualism in the shaping of host immunity, concept talk
- Keynote Speaker, Signaling and Cellular Regulation Graduate Training Program Symposium, University of Colorado, Boulder
- EMBO Symposium – Microbiology after the genomics revolution, Pasteur Institute
- Faculty lecture, Physiology, Marine Biological Laboratory
- University of Chicago, Committee on Immunology
- Caltech, Department of Biology

### 2013

- Keynote Speaker, EMBO Symposium on Comparative Genomics of Lower Eukaryotes, San Feliu de Guixols (Costa Brava), Spain
- Honors Program Lecture Series, New York University School of Medicine, Skirball Institute

- Jean and Katsuma Dan Endowed Lectureship in Embryology/Physiology, Marine Biological Laboratory, Woods Hole, MA
- HHMI-Janelia Farm Symposium, "Making Your Own Way: Pathbreaking Careers in Science"
- Keynote Speaker, 2013 International Choanoflagellate Workshop, Cologne, Germany
- Princeton University, Departments of Molecular Biology and Ecology and Evolutionary Biology
- UCSF Annual Symposium on Developmental and Stem Cell Biology, "New Frontiers in Developmental and Stem Cell Biology"

## 2012

- President's Symposium on "New Model Systems for Biology". American Society for Cell Biology Annual Meeting, San Francisco, CA
- Session on Evolutionary Cell Biology, American Society for Cell Biology Annual Meeting, San Francisco, CA.
- Departmental Seminar, Instituto Gulbenkian de Ciencia, Oeiras, Portugal.
- American Society for Microbiology Beneficial Microbes Conference, San Antonio, TX.
- Life Science Seminar Series, Department of Molecular Biology, Universite de Geneve, Switzerland
- School of Life Sciences, Ecole Polytechnique Federale de Lausanne (EPFL), Switzerland.
- Presidential Symposium, Society for Developmental Biology Annual Meeting, Montreal, Canada
- Symposium on "Ecology and evolution of unicellular eukaryotes", San Francisco, CA, sponsored by American Society for Microbiology (General Meeting)
- Plenary Session, American Society for Microbiology (General Meeting), San Francisco, CA

## 2011

- MIT, Biology Department Colloquium, February 2011
- Keystone Symposium on Evolutionary Developmental Biology, February 2011
- Keynote Speaker, Stowers Institute Young Investigator Research Days, March 2011
- Keynote Speaker, University of Utah, Developmental Biology Retreat, April 2011
- Cancer and Evolution Conference, UCSF, June 2011
- q-Bio Conference on Cellular Information Processing, Santa Fe Institute, August 2011
- Invited participant, Animal-Microbe Interactions Workshop, NESCent Meeting, October 2011
- Departmental Seminar, UC Davis, sponsored by Department of Ecology and Evolution.

## 2010

- Dartmouth University, Biology Department, January 2010
- AAAS Meeting, Science and Entertainment Symposium, "Science of Superheroes, February 2010
- UC Irvine, Department of Biological Chemistry, February 2010
- Keynote speaker, UCSF Developmental Biology retreat, February 2010
- UC San Diego, March 2010
- Keynote speaker, Washington University, St. Louis, Developmental Biology retreat, May 2010
- Chlamydomonas meeting, guest speaker, June 2010
- Broad Institute, Harvard/MIT, June 2010
- Santa Cruz Developmental Biology meeting, June 2010
- Evolution Institute, UC Berkeley, August 2010
- HHMI Evolution and Development Workshop, September 2010

- Kavli Foundation Lecturer, 2010 Life Sciences Research Foundation Annual Meeting, Oct 2010

#### 2009

- Princeton University, joint EEB/Mol Bio seminar, February 2009 (Invited by Manuel Llinas)
- Duke University, Program in Genetics and Genomics, February 2009 (Invited by Paul Magwene)
- Cell LabLinks Symposium on Epithelial Biology, UCSF, March 2009 (invited by Keith Mostov)
- Harvard University, Dept. of MCB, March 2009
- Microbial Science Initiative, Harvard University, April 2009 (Invited by Colleen Cavanaugh)
- National Academy of Sciences symposium, April 2009 (Invited by Nancy Moran)
- Evolution: The Molecular Landscape, the 74th Cold Spring Harbor Symposium on Quantitative Biology, CSHL, June 2009
- Symposium on Body Plan Evolution, annual meeting of the Society for Developmental Biology, July 2009 (Invited by Marianne Bronner-Fraser)
- Gordon Research Conference, Microbial Population Biology, July 2009
- University of Wisconsin, Madison, September 2009
- EMBO Meeting, Genomics of Lower Eukaryotes, Sant Feliu de Guixols, Spain, October 2009
- Stanford Bio-X, October 2009
- ASCB panel on "What is Life", San Diego, CA, December 2009

#### 2008

- Systems Biology, Harvard Medical School, April 2008(Hosted by Marc Kirschner)
- Special Seminar Series, The Rockefeller University, April 2008 (Hosted by Cori Bargmann)
- Gordon Research Conference on "Signaling by Cell Adhesion Receptors," Mt Holyoke College (Organized by James Nelson, Stanford University)
- Integrating Evolution, Development, and Genomics conference, UC Berkeley (organized by graduate students) May 28-30, 2008.
- ICREA Conference on the Origin and Early Evolution of Metazoans, Institució Catalana de Recerca i Estudis Avançats, Barcelona, Spain, October 2008

#### 2007

- Department of Biology, University of Richmond, Richmond, VA (Feb. 26, 2007)
- 25<sup>th</sup> Joan Wood Memorial Lecture, Biology Department, Indiana University, Bloomington, IN (April 4, 2007)
- Quantitative Systems Biology Group, UC Merced, Merced, CA (April 6, 2007)
- Center for Integrative Genomics Workshop: Where did the chordate body plan come from?, Gump Field Station, Moorea, April 16-20. (Organized by Mike Levine)
- Linnean tercentenary celebration: the evolution of the animals. June 18-19. London, England. (Hosted by the Royal Society, organized by Max Telford and Tim Littlewood.)
- Botany Department, University of British Columbia, Vancouver, Canada. (Hosted by Patrick Keeling)
- CIFAR Integrated Microbial Biodiversity Meeting, Vancouver, Canada.

#### 2006

- Friday Harbor Labs Research Symposium: Genomics and the Life Aquatic, Sept. 9-13, 2006 (Organized by Katie Peichel and Chris Amemiya).
- AIBS Special Symposium. Macroevolution: Evolution above the species level. Oct. 14, 2006. Albuquerque, New Mexico. (Organized by American Institute of Biological Sciences and National Association of Biology Teachers.)
- Monterey Bay Aquarium Research Institute, Moss Landing, CA (March 15, 2006)
- Microbial Biodiversity Workshop, Canadian Institute for Advanced Research, Banff, Canada (March 24, 2006)

2005

- Bartholomew Award Lecture, SICB Annual Meeting, San Diego, California, January 5, 2005
- Department of Biology, Washington University, St. Louis (October 3, 2005)
- Donald Abbott Memorial Lecture, Hopkins Marine Station, Stanford University, Pacific Grove, CA (October 14, 2005)
- Frontiers in Interdisciplinary Bioscience Lecture, Stanford University (October 19, 2005)
- Earth History and Paleobiology Seminar Series, Department of Earth and Planetary Sciences, Harvard University (December 6, 2005)

2004

- Society for Developmental Biology, Alberta, Canada, July 24-28, 2004
- Sixth Annual Beckman Scholars Symposium, Arnold and Mabel Beckman Foundation, Irvine, California, July 29 - 31, 2004
- UC Berkeley Microbial Biology Seminar Series, October 20, 2004.
- NASA Astrobiology seminar series, University of Colorado, Boulder, April 28, 2004

1999-2003

- Departmental seminar, Biology Department, University of Massachusetts. Boston, MA (October 1999)
- University Museum of Zoology, Cambridge University (April 2002)
- CDB Symposium: The Origin and Formation of Multicellular Systems, RIKEN Center for Developmental Biology, Kobe, Japan (March 2003)

**TEACHING**Undergraduate courses taught

Evolution of Genomes, Cells, and Development, UC Berkeley	2010, 2011, 2013, 2014
General Genetics	2005, 2008, 2009, 2010, 2015
Molecular Biology (Head Teaching Fellow, Harvard University)	1999

Graduate courses taught

Ethics in Science	2012, 2013
Methods and Logic	2009
Co-instructor with Don Rio and Dan Rokhsar	
Mechanisms of Developmental Evolution	2005, 2006
Co-instructor with Nipam Patel and Mike Levine, UC Berkeley, MCB/IB.	
Protozoa, Metazoa, and the Evolution of Individuality (graduate seminar)	2004

Marine Biological Laboratories courses

Physiology course, Faculty instructor	2014, 2015
Embryology course, Faculty lecturer	2007, 2008, 2010, 2011

Undergraduate students mentored:

- Vika Betin (Fall 2011 – Spring 2013)
  - Summer Undergraduate Research Fellowship
  - *Currently*: Doctoral student, Harvard University
- Allie Greaney (Fall 2011 – Spring 2014)
  - URAP Summer Award
- Parinaz Fozouni (Spring 2011 - present)
  - EDEN Undergraduate Research Fellowship
  - College of L&S Dean's List
- Tara Sultur (Fall 2010 – Spring 2013)
  - Summer Undergraduate Research Fellowship
  - *Currently*: Teach for America corps member
- Sherri Huang (post-bac from WUSTL, Fall 2010 – Spring 2011)



- *Currently*: MD/PhD program, Indiana University School of Medicine
- Lois Letzer Fellowship
- Conor McClune (Fall 2009 - Spring 2010)
  - College of L&S Dean's List
  - *Currently*: Doctoral student, MIT
- Candace Britton (Fall 2009 – Summer 2012)
  - Amgen Scholars Program
  - Outstanding Honors Thesis Presentation, College of Natural Resources
  - Phi Beta Kappa
  - College of Natural Resources Dean's List
  - *Currently*: Doctoral student, UCSF Tetrad Program
- Sara Rodriguez (U of Florida HHMI undergrad, Summer 2009)
  - *Currently*: Medical student, University of Florida
- Jeremy Mosher (Fall 2008 – Spring 2010)
  - Biology Fellows Program
  - *Currently*: Research Assistant, University of Colorado, Denver
- Nic Derr (Fall 2008 – Fall 2010)
  - URAP Summer Award
  - *Currently*: Research Associate, Ohio State University
- Rachel Ross (Fall 2008 – Spring 2009)
- Jenice Arevalo (NSF REU; Summer 2008)
  - NSF REU Fellowship
  - *Currently*: Masters student, UC Irvine
- Kelly McKanna (Fall 2004 – Fall 2007)
- Rick Zuzow (Spring 2004 – Fall 2005)
  - Biology Fellows Program
  - *Currently*: Doctoral student, Stanford University

Graduate students mentored:

- Ella Waters (May 214 – present)
- Kayley Hake (May 2013 – present)
  - NSF Graduate Research Fellowship
- Laura Wetzel (May 2013 – present)
- Arielle Woznica (MCB; April 2011 – present)
  - NSF Graduate Research Fellowship
- Tera Levin (MCB; April 2009 – present)
  - NSF Graduate Research Fellowship
- Brock Roberts (MCB; April 2009 – January 2011)
  - *Currently*: Ph.D. student with Henk Roelink, UC Berkeley
- Daniel Richter (co-mentored with Mike Eisen; MCB; April 2007 – October 2013)
  - American Society for Engineering Education National Defense Science and Engineering Graduate (NDSEG) Fellow
  - National Science Foundation Central Europe Summer Research Institute (CESRI) Fellow
  - Chang-Lin Tien Graduate Fellowship in the Environmental Sciences
  - *Currently*: Post-doc with Colomaban de Vargas, Station Biologique de Roscoff
- Jody Westbrook (MCB; April 2006 – June 2011)
  - Chang-Lin Tien Graduate Fellowship in the Environmental Sciences
  - *Currently*: Scientist at InVitae (Personal genomics firm)
- Stephen Fairclough (MCB; April 2006 – December 2011)
  - *Currently*: Postdoctoral Fellow with Dan Rokhsar, DOE/JGI (Eukaryote Super Program)
- Susan Young (MCB; April 2005 - June 2010)
  - *Currently*: Biomedicine Editor, MIT Technology Review

- Monika Abedin (MCB; April 2005 - June 2010)
  - UC Cancer Research Coordinating Committee Fellowship, UC Berkeley
  - *Currently*: Postdoctoral Fellow with Jeremy Reiter, UCSF
  - NIH National Research Service Award Postdoctoral Fellowship

#### Post-docs mentored

- David Booth (Oct 2014 – present)
- Pawel Burkhardt (October 2009 - 2014)
  - Deutsche Forschungsgemeinschaft Postdoctoral Fellowship
  -
- Emina Begovic (February 2010 - 2013)
  - NIH Re-Entry Supplement
- Jennifer Halbleib (October 2007 – June 2008)
  - *Currently*: Associate at law firm Latham & Watkins, Washington, D.C.
- Alison Sweeney (August 1, 2007 – May 2008)
  - *Currently*: Assistant Professor, Department of Physics and Astronomy, University of Pennsylvania
- Rosie Alegado (July 1, 2007 – July 2013)
  - NIH National Research Service Award Postdoctoral Fellowship
  - *Currently*: Assistant Professor, Department of Oceanography, University of Hawaii
- Mark Dayel (August 1, 2006 – December 2010)
  - Miller Foundation Postdoctoral Fellowship
  - *Currently*: Consultant for Lymphosight and Cairn Biosciences
- Scott Nichols (September 1, 2004 – July 2011); American Cancer Society Postdoctoral Fellowship
  - American Cancer Society Postdoctoral Fellowship
  - *Currently*: Assistant Professor, Department of Biological Sciences, University of Denver

#### ***SERVICE***

##### Departmental service:

MCB Graduate Admissions vice-chair	2014
Graduate Affairs Committee	2011 – present
MCB seminar series co-chair	2014 - present
Graduate student advising, first years (MCB)	2009 - 2011
Graduate Admissions (MCB)	2004/2005, 2005/2006, 2008/2009
Genomics, comp. bio./human genetics, cancer genetics faculty search committee (MCB)	2005/2006
Awards committee (IB)	2005/2006
Funding Initiatives (IB)	2004/2005
Paleobiology faculty search committee (IB)	2004/2005
Executive Committee (IB)	2006/2007
Evolution and Development Supergroup/Genetics Development and Evolution Symposium, Founder and Symposium Organizer	2004-present

##### University-level service

Early Childhood Education Program, Executive Director search committee	2012 - present
Chancellor's Advisory Committee on Dependent Care	2009 - 2013
Biological Sciences Dean (College of Letters and Sciences) search committee	2011 - 2012
Ad hoc tenure committee service	2011, 2012

##### Other service

Senior editor, Evolution Section, <i>PLOS Genetics</i>	2014 - present
International Choanoflagellate Workshop Organizer	2009, 2011, 2015
Janelia Conference on Evolutionary Cell Biology, Co-organizer	2015
Keystone Symposium on Evolutionary Developmental Biology, Co-organizer	2011
Editorial board member, <i>Biology Letters</i>	2011 - 2012
Editorial board member, <i>Eukaryotic Cell</i>	2011 - 2013
Editorial board member, <i>Evo-Devo</i>	2009 – present

## **RESEARCH SUPPORT**

### **Current Research Support**

#### **Investigator Award**

Funding Agency: Howard Hughes Medical Institute

PI: Nicole King

Term: September 2013 – August 2018

#### **Molecular Regulation of Choanoflagellate-Bacteria Signaling Interactions.**

Funding Agency: NIH NIGMS

PI: Nicole King (UC Berkeley), Investigators: Jon Clardy (Harvard Medical School)

Term: Feb. 2012 – January 2017

#### **Collaborative Research: Evolution of Multicellularity: Fluid Mechanics of Feeding by Unicellular vs. Multicellular Choanoflagellates.**

Funding Agency: NSF National Science Foundation, Sponsor Award ID: 033044-002.

PI: Mimi Koehl, Co-PI: Nicole King, Dan Fletcher (UCB), Roman Stocker (MIT)

Term: May 2012 – April 2015

#### **Choanoflagellate colony formation as a simple model for animal multicellularity**

Funding Agency: NIH NIGMS

PI: Nicole King

Term: March 2010 – February 2015

#### **Program in Integrated Microbial Biodiversity (<http://www.cifar.ca/web/home.nsf/pages/imb>)**

Program Director: Patrick Keeling, University of British Columbia

Funding Agency: Canadian Institute for Advanced Research

Term: July 2007 – present

**Completed Research Support**

**Identifying ancestral and core functions of cadherins**

PI: Nicole King

Funding Agency: American Cancer Society

Term: January 2009 – December 2012

**The Requirements for Development and Maintenance of Complex Life**

PI: Roger Summons, MIT

Co-PIs: Daniel Rothman (MIT), Samuel Bowring (MIT), Andrew Knoll (Harvard), Doug Erwin (Smithsonian), Kevin Peterson (Dartmouth), John Grotzinger (Caltech), Nicole King (Berkeley), Ann Pearson (Harvard), Dimitar Sasselov (Harvard), Daniel Segrè (BU), David Jacobs (UCLA), David Patterson (MBL)

Funding Agency: NASA Astrobiology Institute

Term: November 2008 – October 2012

**Choanoflagellates and the origin of animals**

PI: Nicole King

Marine Microbiology Initiative; Gordon and Betty Moore Foundation

Grant # 581

Choanoflagellates and the origin of animal multicellularity;

Term: October 2004 – September 2007 (no cost extension through 9/08)

**Choanoflagellates and the origin of animals**

PI: Nicole King

Funding agency: Pew Scholars Program, Pew Charitable Trusts

Term: July 2004 – June 2008 (no cost extension to June 2009)

**Insights into animal origins by comparative genomics of sponges**

PI: Nicole King

Funding Agency: Hellman Family Faculty Fund, Office of the Vice Provost, UC Berkeley

Term: July 2009 – June 2010

**Gift**

PI: Nicole King

Funding source: Richard Melmon

Term: March 2007 – present