

Christina King Smith
Professor of Biology
[Faculty Profile](#)

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Education

B. S. (1982) Biology, Bucknell University, Lewisburg, PA
M.S. (1985) Marine Sciences (Marine Biology/Biochemistry), University of Delaware
Ph.D. (1992) Biological Sciences, University of Maryland, Baltimore County
Postdoctoral Research (1992-1996) Department of Cell and Molecular Biology, University of California, Berkeley

Academic employment

2014 – 2020 Chair, Department of Biology, Saint Joseph's University
2008 – pres. Professor of Biology, Saint Joseph's University. Teaching responsibilities: freshman courses in Cell Biology and Genetics; freshman Phage Genomics laboratory, upper division course in Advanced Cell Biology.
2009- 2013 Program Director, Howard Hughes Medical Institute (HHMI) Science Education Grant at SJU
2011 - 2014 Program Director, John P. McNulty Scholars Program for Excellence in Science and Mathematics at Saint Joseph's University (Scholarship and leadership program for women in STEM majors).
2005 – 2011 Department Advisor and Coordinator. Provide group advising sessions for students, advise Biology minors, help with advising assignments, assist the Chair in departmental duties
2004 - 2005 Visiting Scholar, University of Pennsylvania School of Medicine. Conducted research in the lab of Dr. E. Michael Ostap during a sabbatical leave.
2002 – 2008 Associate Professor of Biology, Saint Joseph's University.
1996 - 2002 Assistant Professor of Biology, Saint Joseph's University.
1996 Lecturer in Cell Biology, University of California, Berkeley. Led discussion sections for a cell biology course.
1992 - 1996 Postdoctoral fellow, laboratory of Prof. Beth Burnside, Department of Molecular and Cell Biology, University of California, Berkeley. Research: cytoskeletal mechanisms of intracellular transport of pigment granules in teleost retinal pigment epithelial (RPE) cells
1991 - 1992 Graduate Research Assistant, Department of Biological Sciences, University of Maryland Baltimore County (UMBC), Baltimore, MD. Research: ultrastructure and cytoskeletal mechanisms of pigment granule movement in crustacean photoreceptors.
1987 - 1991 Graduate Teaching Assistant, Department of Biological Sciences, UMBC. Laboratory teaching assistant for Organismic Biology and Plant Physiology; discussion sections for General Biology and Human Genetics
1987 Faculty Research Assistant, Department of Biological Sciences, UMBC. Sensory physiology and ultrastructural analysis of crustacean photoreceptors
1985 - 1986 Faculty Research Assistant, Environmental Studies Center, Lehigh University, Bethlehem, Pennsylvania. Cultivation of freshwater clams and morphological and histochemical investigations of the attachment thread.
1983; 1985 Assistant Scientist aboard *R/V Westward*, training vessel for the Sea Education Association, Woods Hole, MA. Instructed undergraduate students in oceanographic techniques

Courses Taught :

Freshman level, majors courses: BIO 101 Cells, BIO 102, Genetics and Evolutionary Biology, lecture and laboratory; Bio 150L FYS: Phage Genomics Laboratory (first year seminar starting Fall 2010).
Bio 151L, Phage Genomics Laboratory, *in silico* section
Upper division/Masters level: Advanced Cell Biology, with laboratory; Undergraduate Research; Honors Research; Graduate Seminar.

Awards and Honors:

2020 Saint Joseph's University Morris Grant to support scholarship
2018 Saint Joseph's University Summer Research Award
2014 Tenglemann Award for Research and Teaching
2014 Provost's Award for funded research, Saint Joseph's University
2013 Saint Joseph's University Morris Grant to support scholarship
2012 Honorable Mention, American Society for Cell Biology "Celldance" Video competition, for educational film illustrating organelle motility in retinal pigment epithelial cells
2011 Saint Joseph's University Summer Research Award
2009 Faculty Merit Award for Teaching, Saint Joseph's University
2004 - 2005 NIH National Research Service Award Senior Fellowship, "Role of myosin-I in membrane and actin dynamics", research carried out during a sabbatical leave in the lab of Dr. E. Michael Ostap, University of Pennsylvania School of Medicine.
2003 Faculty Merit Award for Research, Saint Joseph's University
1998 Saint Joseph's University Summer Research Award
1992 - 1995 NIH National Research Service Award for Postdoctoral Fellows- "Pigment granule migration in retinal pigment epithelium"

Extramural Funding:

2019 NSF: Co-principal investigator, #1919847, "MRI: Acquisition of an automated fluorescent microscope and imaging system for undergraduate biology and chemistry research and research training", \$138,238
2009 – 2011: HHMI Sea Education Alliance: Phage Genomics Laboratory (with Julia Y. Lee-Soety)
HHMI provided training and financial support to run Phage Genomics laboratory, a freshman laboratory associated with BIO 101 that allows students to participate in research. HHMI, through the SEA-PHAGES program, continues to support this lab up to present through providing genome sequencing for two bacteriophages each year
2008 – 2010: NSF: Co-Principal Investigator, # 0821298, MRI: Acquisition of a Confocal Microscope for Research and Research Training in Biology and Physics at Saint Joseph's University", \$413,049
2008 – 2013: Howard Hughes Medical Institute, Undergraduate Science Education- Colleges Grant (granted to the Biology and Physics departments; four years and 1 year no-cost extension). ~\$1,000,000. Role: Program Director
2002 NIH: Principal Investigator, R-15 Academic Research Enhancement Award NIH: #R15 GM066961 "Actin and Myosins in Organelle Motility", \$121,581 (three year grant; received no-cost extension)
2001 NSF: Co-Principal Investigator, MRI # 01-15962, "MRI: Acquisition of a Transmission Electron Microscope and Ultramicrotome for Research in the Natural Sciences at Saint Joseph's University" \$354,183
1998 NIH: Principal Investigator, R-15 Academic Research Enhancement Award (AREA), # R15 GM59460, "Mechanisms of Actin-Dependent Organelle Motility", \$74,920

1997 NSF: Co-Principal Investigator, MRI #97-24401, "MRI: Acquisition of Two Microscopes with Image Processing and Analysis Instrumentation for Biological Research at Saint Joseph's University" \$142,099

Grants submitted by students:

1999 Grant-in-Aid from the National Academy of Sciences through Sigma Xi, awarded to Paul Basciano, ('01): "Determination of actin polarity within the apical projections of teleost retinal pigment epithelium cells", \$508

Publications *denotes undergraduate student; ** denotes M.S. student

Journal articles (peer reviewed)

L'Etoile, N.J. * And **C. King-Smith. 2020.** Rosette colonies of choanoflagellates (*Salpingoeca rosetta*) show increased food vacuole formation compared with single swimming cells. *Journal of Eukaryotic Microbiology* 67:263-267. <https://doi.org/10.1111/jeu.12780>

Pope WH, Bowman CA, Russell DA, Jacobs-Sera D, Asai DJ, Cresawn SG, Jacobs WR, Hendrix RW, Lawrence JG, Hatfull GF; **Science Education Alliance Phage Hunters Advancing Genomics and Evolutionary Science**; Phage Hunters Integrating Research and Education; Mycobacterial Genetics Course. 2015. Whole genome comparison of a large collection of mycobacteriophages reveals a continuum bacteriophage genetic diversity. *eLife* 2015;4:e06416. DOI: <http://dx.doi.org/10.7554/eLife.06416>

Cresawn SG, Pope WH, Jacobs-Sera D, Bowman CA, Russell DA, Dedrick RM, Adair T, Anders KR, Ball S, Bollivar D, Breitenberger C, Burnett SH, Butela K, Byrnes D, Carzo S, Cornely KA, Cross T, Daniels RL, Dunbar D, Findley AM, Gissendanner CR, Golebiewska UP, Hartzog GA, Hatherill JR, Hughes LE, Jalloh CS, De Los Santos C, Ekanem K, Khambule SL, King RA, **King-Smith C**, Klyczek K, Krukonis GP, Laing C, Lapin JS, Lopez AJ, Mkhwanazi SM, Molloy SD, Moran D, Munsamy V, Pacey E, Plymale R, Poxleitner M, Reyna N, Schildbach JF, Stukej J, Taylor SE, Ware VC, Wellmann AL, Westholm D, Wodarski D, Zajko M, Zikalala TS, Hendrix RW, Hatfull GF. 2015. Comparative Genomics of Cluster O mycobacteriophages. *PLoS ONE* 10(3): e0118725. doi: 10.1371/journal.pone.0118725. eCollection 2015.

King-Smith, C., Vagnozzi, R.J.* , Fischer, N.E.* , Gannon, P.* , and Gunnam, M.** 2014. Orientation of actin filaments in teleost retinal pigment epithelial cells, and effect of the lectin, Concanavalin A, on melanosome motility. *Visual Neuroscience* 31:1-10.

Barsoum, I.B.**. and **C. King-Smith.** 2007. Myosin II and rho kinase are required for melanosome aggregation in fish retinal pigment epithelial (RPE) cells. *Cell Motility and the Cytoskeleton* 64:868-879.

McNeil, E.L.* , D. Tacelosky* , P. Basciano* , B. Biallas** , R. Williams* , P. Damiani* , S. Deacon* , C. Fox* , B. Stewart* , N. Petruzzi* , C. Osborn* , K. Klinger* , J.R. Sellers, and **C. King-Smith.** 2004. Actin-dependent motility of melanosomes from fish retinal pigment epithelial (RPE) cells investigated using *in vitro* motility assays. *Cell Motility and the Cytoskeleton* 58:71-82.

Basciano, P.A.* and **C. King-Smith.** 2002. Actin-dependent, retrograde motility of surface-attached beads and aggregating pigment granules in dissociated teleost retinal pigment epithelial cells. *Pigment Cell Research* 15:162-173.

King-Smith, C., P. Basciano* , N. Pham* . 2001. Effect of the actin stabilizing drug, jasplakinolide, on pigment granule motility in the retinal pigment epithelium (RPE) of green sunfish, *Lepomis cyanellus*. *Pigment Cell Research* 14:14-22.

King-Smith, C., P. Paz, C. W. Lee* , W. Lam* , and B. Burnside. 1997. Bi-directional pigment granule migration in isolated retinal pigment epithelial (RPE) cells requires actin but not microtubules. *Cell Motility and the Cytoskeleton* 38:229-249.

King-Smith, C. and T. W. Cronin. 1996. Pigment granule migration in crustacean photoreceptors requires calcium. *Visual Neuroscience* 13:43-49.

- King-Smith, C.**, D. Garcia, P. Chen*, H. Rey, and B. Burnside. 1996. Calcium-independent regulation of pigment granule aggregation and dispersion in teleost retinal pigment epithelial cells. *Journal of Cell Science* 109:33-43.
- King-Smith, C.**, L. Bost-Usinger and B. Burnside. 1995. Expression of kinesin heavy chain isoforms in retinal pigment epithelial cells of teleosts. *Cell Motility and the Cytoskeleton* 31:66-81.
- Cronin, T.W., N. J. Marshall, C. A. Quinn and **C. A. King**. 1994. Ultraviolet photoreception in mantis shrimp. *Vision Research* 34:1443-1452.
- King, C. A.** and T. W. Cronin. 1994a. Investigations of pigment granule transport systems in *Gonodactylus oerstedii* (Crustacea, Hoplocarida, Stomatopoda) I. Effects of low temperature on the pupillary response. *Journal of Comparative Physiology A* 175:323-329.
- King, C. A.** and T. W. Cronin. 1994b. Investigations of pigment granule transport systems in *Gonodactylus oerstedii* (Crustacea, Hoplocarida, Stomatopoda) II. Effects of low temperature on pigment granule position and microtubule populations in reticular cells. *Journal of Comparative Physiology A* 175:331-342.
- King, C. A.**, and T. W. Cronin. 1993. Cytoskeleton of reticular cells from the stomatopod, *Gonodactylus oerstedii*: possible roles in pigment granule migration. *Cell and Tissue Research* 274:315-328
- Marshall, N. J., M. F. Land, **C. A. King** and T. W. Cronin. 1991. The compound eyes of mantis shrimps (Crustacea, Hoplocarida, Stomatopoda). I. Compound eye structure: the detection of polarized light. *Philosophical Transactions of the Royal Society of London B* 334:33-56
- Marshall, N. J., M. F. Land, **C. A. King** and T. W. Cronin. 1991. The compound eyes of mantis shrimps (Crustacea, Hoplocarida, Stomatopoda). II. Polychromatic vision by serial and lateral filtering. *Philosophical Transactions of the Royal Society of London B* 334:57-84
- Cronin, T. W. and **C. A. King**. 1989. Spectral sensitivity of vision in the mantis shrimp, *Gonodactylus oerstedii*, determined using non-invasive optical techniques. *Biological Bulletin* 176:308-316
- King, C. A.**, C. J. Langdon and C. L. Counts, III. 1986. Spawning and early development of *Corbicula fluminea* (Bivalvia: Corbiculidae) in laboratory culture. *American Malacological Bulletin* 4:81-88

Book Chapters (peer reviewed)

- King-Smith, C.** 2016. "Melanosome motility in fish retinal pigment epithelial (RPE) cells". In: Gavin, R. H. (Ed) *Cytoskeleton: Methods and Protocols 3rd Edition, Methods in Molecular Biology*. Vol 1365, Springer Science+Business Media New York. pp. 315-322.
- Burnside, B. and **C. King-Smith**. 2010. Chapter 172: "Comparative Eye: Fish Retinomotor Movements". In: (Dartt, D., Besharse, B., Dana, R., Batelle, B. Eds.), *The Encyclopedia of the Eye*. Elsevier. Amsterdam, The Netherlands.
- King-Smith, C.** 2009. "Melanosome motility in fish retinal pigment epithelial cells". In: Gavin, R.H. (Ed) *The Cytoskeleton: Methods and Protocols 2nd Edition, Methods in Molecular Biology*. Vol 586, Humana Press, pp. 275-281.
- Burnside, B and **C. King-Smith**. 2008. (online). "Retinomotor Movements". In: (Squire, L. R., Ed.) *The Encyclopedia of Neuroscience*. Elsevier, Amsterdam, The Netherlands.
<http://www.elsevierdirect.com/brochures/ens/index.html>

Other publications (peer reviewed)

- Burnside, B., **King-Smith, C.** 2017. Retinomotor Movements. In *Reference Module in Neuroscience and Biobehavioral Psychology*, Elsevier, 2017. ISBN 9780128093245

Professional Activities

- 2019 Moderator and Panelist for Achieving Career Transitions workshop (sponsored by ASCB Minority Affairs Committee, IPERT grant), “Obtaining a Faculty Position at a PUI”, and “Setting Up and Managing a Lab at a Teaching Intensive Institution”.
- 2019 Member of review team for targeted program review, Loyola University, Maryland, Department of Biology.
- 2012, 2013 Grant peer reviewer, National Science Foundation; Cytoskeleton/Cell Motility panel of the Cellular Processes Cluster, Division of Molecular and Cellular Biosciences. Primary or secondary reviewer or scribe for ca. ten proposals
- 2008 Grant proposal reviewer for the NIH, Cell Structure and Function (CSF) panel. Primary or secondary reviewer or discussant for six grant proposals.
- 2004 Grant peer reviewer for the NIH Cell, Development, and Function study section 4 (CDF-4). Primary or secondary reviewer for ca. eight grant proposals.

Peer reviewer for the following journals: Cytoskeleton (previously called Cell Motility and the Cytoskeleton), Biological Bulletin, Cell and Tissue Research, Journal of Neurochemistry, Journal of Neurology, Photochemistry and Photobiology,

Published Abstracts/Meeting presentations (not peer reviewed)

- Habdas, M., Habdas, P., Habdas, J., and **C. King-Smith**. 2019. Localization of porphyrin TMP in B16F1 mouse melanoma cells and its potential use in photodynamic therapy. *Molecular Biology of the Cell* 30, page 189 Abstract # 2080. <https://doi.org/10.1091/mbc.E19-11-0617>
- Tashiro, T. and **C. King-Smith**. 2019. Inhibition of arp2/3-mediated actin nucleation alters membrane dynamics but does not block pigment granule aggregation or dispersion in isolated fish retinal pigment epithelial (RPE) cells. *Molecular Biology of the Cell* 30, page 44, Abstract #956. <https://doi.org/10.1091/mbc.E19-11-0617>
- King-Smith, C.**, J. Quinlan*, N. Fischer*, M. Jeffries*, M.L. Quinlan* E. Del Rio*. 2018. Regulation of myosin II-dependent pigment granule aggregation in retinal pigment epithelium by cyclic AMP and protein kinase A (PKA) *Molecular Biology of the Cell* 29, page 117, Abstract # 1981.
- King-Smith, C.**, J. Quinlan*, N. Fischer*, E. Del Rio*, M.L. Quinlan* M. Messalti*. 2017. The role of cAMP and protein kinase A (PKA) in regulation of myosin II-dependent pigment granule aggregation in RPE of sunfish, *Lepomis spp.* *Molecular Biology of the Cell* 28, page 80, Abstract # 1124.
- King-Smith, C.**, J. Quinlan*, N. Fischer*, E. Del Rio*, and M. Messalti. 2017. The role of cAMP and protein kinase A (PKA) in regulation of pigment granule aggregation in RPE of sunfish, *Lepomis spp.*. *Investigative Ophthalmology and Visual Science*. 58(8):1038.
- Fritz, C, Forster, B.M., Snetselaar, K., and **C. King-Smith**. 2015. Beyond Collaboration: Strengthening a life science community of practice for science education by bringing cell biology to high school students. *Molecular Biology of the Cell* 26, page 556, Abstract # 811.
- L’Etoile*, N. and **C. King-Smith** 2015. Kinetics of phagocytosis in different cell types of choanoflagellates (*Salpingoeca rosetta*). *Molecular Biology of the Cell* 26, page 1111, Abstract #158
- Lee-Soety, J.Y. and **C. King-Smith**. Isolating and analyzing bacteriophages with first year Biology students at Saint Joseph's University. *Molecular Biology of the Cell* 25, page 663, Abstract #P828.
- O’Donnell*, M. and **C. King-Smith**. 2014. Retinomotor movements and the distribution of the visual enzyme, RPE65, in fish retinal pigment epithelial cells. 2014. *Molecular Biology of the Cell* 25, page 39, Abstract #P47.

- L'Etoile*, N., E.J. Adjei-Danquah* and **C. King-Smith**. Kinetics of phagosome formation in choanoflagellates (*Salpingoeca rosetta*). 2014. *Molecular Biology of the Cell* 25, page 329, Abstract #P407.
- Collins*, C., O'Donnell*, M. and **C. King-Smith**. Distribution of the visual cycle isomerase, RPE65, in light- and dark-adapted fish retinal pigment epithelium. 2013. *Molecular Biology of the Cell* 24, Abstract #1168.
- King-Smith**, N. E. Fischer*, P. Gannon*, M. Gunnam**, R. J. Vagnozzi*. 2012. Orientation of actin filaments and microtubules in teleost retinal pigment epithelial cells, and effect of the lectin, concanavalin A, on melanosome motility. *Molecular Biology of the Cell* 23, (suppl) Abstract # 1269.
- Cannon*, K.S., L. Hamilton, M. Hughes*, G. Cannarsa*, D. S. Zuzga, and **C. King-Smith**. 2011. Effect of Myosin Ie Knockdown on Cell Adhesion, Spreading, and Random Cell Migration. *Molecular Biology of the Cell* 22, 4705 (abstract #303).
- Fischer*, N.E. and **C. King-Smith**. 2011. Regulation of Pigment Granule Aggregation by Protein Kinase A in Fish Retinal Pigment Epithelial (RPE) Cells. *Molecular Biology of the Cell* 22, (suppl) Abstract #588.
- Cannarsa*, G., Zuzga, D. and C. King-Smith. 2010. Knockdown of myosin Ie accelerates cell migration in B16F1 mouse melanoma cells. *Molecular Biology of the Cell* 21 (suppl):Abstract no. 108.
- Fischer*, N. E. and **C. King-Smith**. 2010. Localization and role of protein kinase A in Pigment granule aggregation in fish retinal pigment epithelial cells. *Molecular Biology of the Cell* 21 (suppl):Abstract no. 967.
- King-Smith**, C. and Julia Y. Lee-Soety. 2010. Phage Genomics Laboratory: Experiential Learning for First Year Biology Students. *Molecular Biology of the Cell* (suppl): Abstract no. 967.
- Black, L.* , Mawhinney, M.* , Habdas, J., Habdas, J., and **C. King-Smith**. 2008. Cytotoxicity of a novel porphyrin compound with potential for use in photodynamic therapy. *Molecular Biology of the Cell* 19 (suppl): W:L16 (CD-ROM).
- Gannon, P* and **C. King-Smith**. 2007. Concanavalin A inhibits melanosome aggregation but not dispersion in retinal pigment epithelial cells. *Molecular Biology of the Cell* 18 (Suppl) 193 (CD-ROM).
- Oates, J* and **C. King-Smith**. 2007. The phosphatase inhibitor, calyculin A, stimulates melanosome aggregation in fish retinal pigment epithelial (RPE) cells. *Molecular Biology of the Cell* 18 (Suppl) 193 (CD-ROM).
- Gannon, P* and **C. King-Smith**. 2006. Concanavalin A inhibits melanosome aggregation in isolated retinal pigment epithelial cells. *Molecular Biology of the Cell* 17 (Suppl) L59 (Tuesday). (Late Abstracts, The American Society for Cell Biology 46th Annual Meeting)
- Vagnozzi, R* and **C. King-Smith**. 2006. Actin filament polarity in retinal pigment epithelial cells of green sunfish, *Lepomis cyanellus*. *Molecular Biology of the Cell* 17 (Suppl) 1653 (CD-ROM)
- Tacelosky, D*, S. Forman, S. Cooper, P. Heil*, and **C. King-Smith**. 2005. A computational model of actin-dependent transport in fish retinal pigment epithelial (RPE) cells. *Molecular Biology of the Cell* 16 (Suppl) 79a..
- Barsoum, I.B.* and **C. King-Smith**. 2004. Inhibition of myosin II and rho kinase blocks melanosome aggregation in fish retinal pigment epithelial (RPE) cells. *Molecular Biology of the Cell* 15 (Suppl) 583a-584a.
- Fox, C.D.*, P. Damiani*, R.V. Williams*, B.M. Biallas*, D. M. Tacelosky*, and **C. King-Smith**. 2003. Melanosome motility and identification of the small GTPase, rab27a, in retinal pigment epithelial (RPE) cells of sunfish (*Lepomis spp.*) and zebrafish (*Danio rerio*). *Molecular Biology of the Cell* 14 (Suppl) 332a-333a.
- Barsoum, I.B.* and **C. King-Smith**. 2003. Blebbistatin, a myosin II inhibitor, blocks melanosome aggregation but not dispersion in fish retinal pigment epithelial (RPE) cells. *Molecular Biology of the Cell* 14 (Suppl) 332a.

- King-Smith, C.** 2002. Using the Personal Response System (PRS) for Learning and Assessment in Undergraduate Cell Biology and Genetics Courses. *Molecular Biology of the Cell* 13 (Suppl) 414a-415a.
- McElwee, K.* and **C. King-Smith.** 2001. Affects of micromanipulation and microsurgery on pigment granule movement within projections of isolated retinal pigment epithelial cells. *Molecular Biology of the Cell* 12 (Suppl): 165a-166a.
- McNeil, E.L.* , Klinger, C.A.* , Stewart, B.L.* , Sellers, J.R., and **C. King-Smith.** 2001. Pigment granules from fish retinal pigment epithelial (RPE) cells undergo plus-end directed motility in assays using the Characean alga, *Nitella axillaris*. *Molecular Biology of the Cell* 12 (Suppl): 165a.
- McNeil, E*., Basciano, P*., Sellers, J.R. and **C. King-Smith.** 2000. Isolated pigment granules from teleost retinal pigment epithelial cells move along actin cables of the alga, *Nitella axillaris*. *Molecular Biology of the Cell* 11 (Suppl):355a.
- Basciano, P.A.*, Deacon, S.*, Sellers, J.R., and **C. King Smith.** 1999. Actin-dependent pigment granule motility and retrograde movement of surface-attached microspheres in isolated retinal pigment epithelial cells. *Molecular Biology of the Cell* 10 (Suppl):138a.
- King-Smith, C.,** N.B. Pham* and P. Basciano*. 1998. Motility of pigment granules in isolated retinal pigment epithelial (RPE) cells in response to the actin-stabilizing drug, jasplakinolide. *Molecular Biology of the Cell* 9 (Suppl):406a.
- King-Smith, C.** and N.B. Pham*. 1997. Stabilization of F-actin by jasplakinolide inhibits pigment granule aggregation but not dispersion in isolated retinal pigment epithelial cells of teleosts. *Molecular Biology of the Cell* 8 (Suppl):172a
- Burnside, B. and **C. King-Smith.** 1996. Actin-dependent pigment granule transport in retinal pigment epithelial cells. *Biological Bulletin* 192: 181-2
- King-Smith, C.,** P. Paz and B. Burnside. 1994. Pigment granule motility in isolated retinal pigmented epithelial cells (RPE) does not require microtubules but is blocked by cytochalasin. *Molecular Biology of the Cell* 5 (Suppl): 41a
- King-Smith, C.** and B. Burnside. 1994. RPE cells contain kinesin. *Investigative Ophthalmology and Visual Science* 35 (Suppl.):1757
- King, C. A.** and T. W. Cronin. 1991. Microtubule populations in crustacean photoreceptor cells: interactions with migratory pigment granules. *Journal of Cell Biology* 115 (Suppl.):39a
- King, C. A.** and T. W. Cronin. 1990. Intracellular motility in photoreceptors: Cytoskeleton of reticular cells in stomatopod crustaceans. *Investigative Ophthalmology and Visual Science* 31 (Suppl.):283
- King, C. A.** and T. W. Cronin. 1989. Ultrastructural evidence for the pupillary response in stomatopod photoreceptors: cytoskeleton and orientation of pigment granules. *Investigative Ophthalmology and Visual Science* 30 (Suppl.):292
- King, C. A.** and K. E. Hoagland. 1987. Histochemistry and morphology of the attachment thread of *Corbicula fluminea* (Bivalvia: Corbiculidae). *Western Society of Malacologists Annual Report* 19:18

Genbank submissions:

- Bernardo, T., Corbacio, C.E., Tremoglie, M., Storm, E.K., Adjei-Danquah, E.J., London, S.C., Denigris, D.M., Lee-Soety, J.Y., **King-Smith, C.**, Ware, V.C., Bradley, K.W., Asai, D.J., Bowman, C.A., Russell, D.A., Pope, W.H., Jacobs-Sera, D., Hendrix, R.W. and Hatfull, G.F. 2017. Mycobacterium phage Marie, complete genome. GenBank Accession Number KU578077.
- Johnson, J.E., Jenkins, V.R., Julian, J.F., Ossont, B.P., Storm, E.K., Wall, J.C., Adjei-Danquah, E.J., London, S.C., Denigris, D.M., Lee-Soety, J.Y., **King-Smith, C.**, Schaff, J.E., Dashiell, C.L., Macialek, J.A., Ware, V.C., Bradley, K.W., Asai, D.J., Bowman, C.A., Russell, D.A., Pope, W.H., Jacobs-Sera, D., Hendrix, R.W. and Hatfull, G.F. 2017. Mycobacterium phage Mulciber, complete genome. GenBank Accession Number KU695581.1.
- Ahmad, A.E., Narayanam, L.S., Newman, S., Patrick, H., Ryan, M.A., Quinlan, J.G., Siwak, M.P., Travers, M.E., Szurgot, M.R., Storm, E.K., Palmer, J.L., Adjei-Danquah, E.J., Denigris, D.M., Hartwell, M.C., London, S.C., **King-Smith, C.**, Lee-

- Soety,J.Y., Bollivar,D., Garlena,R.A., Russell,D.A., Pope,W.H., Jacobs-Sera,D., Hendrix,R.W.,and Hatfull,G.F. **2016**. Mycobacterium phage Pharsalus, complete genome. GenBank Accession Number:KX611831.1.
- Muretta,M., Kloiber,A.M., Jeffries,M.R., Frankenfield,A.M., Williams,K.C., Honer,M.A., Nguyen,T.Y., Adjei-Danquah,E.J., Isackman,A.C., Oakes,S.A., Patel,P.B., Denigris,D.M., London,S.C., Hartwell,M.C., Lee-Soety, J.Y., **King-Smith,C.**, Plymale,R., Garlena,R.A., Russell,D.A., Pope,W.H., Jacobs-Sera,D., Hendrix,R.W.,and Hatfull,G.F.**2016**. Mycobacterium phage Lego3393, complete genome.GenBank Accession Number:KX620786.1.
- Temme, D.W., Johnson, J.E., London, S.C., Surillo, G.M., Radigan, N.J., Pyfer, K.B., Porzucek, A.J., Philogene, A.J., Logan, K.R., Johnson, J.E., Freeman, C.M., Ferroni, G.J., Denigris,D.M., Collins, J.M., Casey, J.P., Buhalo, D.J., Ahmed, A., Lahoda, L.A., Lee-Soety, J.Y., **King-Smith, C.**, Delesalle, V.A., Bradley, K.W., Asai, D.J., Bowman, C.A., Russell, D.A., Pope, W.H., Jacobs-Sera, D., Hendrix, R.W. and Hatfull, G.F. **2015**. Mycobacteriophage DTDevon, complete genome. GenBank Accession Number KT365398
- Denigris, D.M., Temme, D.W., Ahmed,A., Buhalo, D.J., Casey, J.P., Collins, J.M., Ferroni, G.J., Freeman, C.M., Johnson, J.E., Logan, K.R., London, S.C., Philogene, A.J., Porzucek, A.J., Pyfer, K.B., Radigan, N.J., Surillo Gonzalez, M.R., Lahoda,L.A., Lee-Soety,J.Y. **King-Smith, C.**, Buck, G.A., Campbell, R., Carvalho, M.R., Duckworth, R.A., Dunn,T., Halpern, C., Johnson, A., Kiflezghi,M.G., Lee,V., Loviza,R.A., Serrano,M.G., Shah,Z.V., Sharma,K., Voegtly, L.J., Walstead, R., Wang,Y.P., Bradley, K.W., Clarke, D.Q., Barker, L.P., Bailey, C., Asai, D.J., Bowman, C.A.,Russell, D.A., Pope, W.H., Jacobs-Sera, D., Hendrix, R.W. and Hatfull,G.F. **2014**. Mycobacterium phage Oaker, complete genome. GenBank Accession Number KF986247
- Bergmann,A.J., Brandley, V.E., Curcillo, C.P., Dougher,A.M.,Emmert, R.A., Ezzo, D.R., Galassi, M.E., Kesaris, A.C., Lahoda, L.A., Marano, C.N., Martino, O.A., Muretta, M., Pappaterra, L.M., Rollman, L.E., Smith, K.M., Smith, T.J., Xander, C.J., Young, L.K., Bodnar, B.H., Collins, C.M., Lee-Soety,J.Y., **King-Smith,C.**, Buck,G.A., Campbell,R., Carvalho,M.R., Johnson,A., Kettlewell,J.M., Lee,V., Loviza,R., Renner,D., Serrano,M.G., Voegtly,L.J., Walstead,R., Wang,Y.P., Bradley,K.W., Khaja,R., Lewis,M.F., Barker,L.P., Asai,D.J., Bowman,C.A., Russell,D.A., Pope,W.H., Jacobs-Sera,D., Hendrix,R.W. and Hatfull,G.F. **2013**. Mycobacterium phage Winky, complete genome. GenBank Accession Number KC661276.1
- Bergmann, A.J., Brandley, V.E., Curcillo, C.P., Dougher, A.M., Emmert, R.A., Ezzo, D.R., Galassi, M.E., Kesaris, A.C., Lahoda, L.A., Marano, C.N., Martino, O.A., Muretta, M., Pappaterra, L.M., Rollman, L.E., Smith, K.M., Smith, T.J., Xander, C.J., Young, L.K., Bodnar, B.H., Collins, C.M., Lee-Soety, J.Y., **King- Smith, C.**, Wang, X., Crowell, R., Bostrom, M.A., Burke, M., Wright, G.M., Gregory, S.G., Colman,S.D., Bradley, K.W., Khaja, R., Lewis, M.F., Barker, L.P., Asai, D.J., Bowman, C.A., Russell, D.A., Pope, W.H., Jacobs-Sera, D., Hendrix, R.W. and Hatfull, G.F. **2012**. Mycobacterium phage Flux, complete genome. GenBank Accession Number JQ809701.
- Bahr,T.J., Callaghan,C.J., Chea,E.P., Filice,M.R., Harrison,J.N., Irwin,C.E., Julian,N.W., Lupey,L.N., Maris,A.P., Martino,V.L., Nguyen,K.L., Nicoletto,R.E., Rafferty,J.P., Smith,K.A., Southwell,M.J., Sparrow,A.L., MacGibeny,M.A., Lee-Soety,J.Y., **King-Smith,C.**, Zhang,X., Meincke,L.J., Goodwin,L.A., Detter,J.C., Han,S., Green,L.D., Bradley,K.W., Khaja,R., Lewis,M.F., Barker,L.P., Jordan,T.C., Russell,D.A., Leuba,K.D., Fritz,M.J., Bowman,C.A., Pope,W.H., Jacobs-Sera,D., Hendrix,R.W. and Hatfull,G.F. **2011**. Mycobacterium phage Daisy, complete sequence. GenBank Accession Number JF704095.
- Bernardo,T.J., Bodnar,B.H., Collins,C.M., DeBernardo,A.J., Eichman,B.M., Elorette,C.E., Fagan,A.M., Hardy,T.A., Laznicka,A.V., Montone,G.M., No,G.S., Orbe,K.A., Patterson,B.L., Quinn,M.A., Spencer,S.B., Thelmo,F.L., Wagner,M.H., Walker,M.L., Harrison,J.N., **King-Smith,C.**, Lee-Soety,J.Y., Wang,X., Crowell,R., Burke,M., Wright,G.M., Gregory,S.G., Colman,S.D., Bradley,K.W., Khaja,R., Lewis,M.F., Barker,L.P., Jordan,T.C., Russell,D.A., Pope,W.H., Jacobs-Sera,D., Hendrix,R.W. and Hatfull,G.F. **2011**. Mycobacterium phage BPBiebs31, complete genome. GenBank Accession Number JF957057
- Jacobs-Sera, D., Zellars, M., Wells, M.E., Webb, J.L., Ware, V.C., Vazquez, E., TamarapuParthasarathy, P., Smith, I.A., Simon, S.E., Shaffer, C.D., Rubin, M.R., Rosenzweig, R.F., Rinehart, C.A., Qin, H., Pillay, I., Payne, D.E. II, Padolina, J.M., Novick, A., Miller, E.S., Mayer, E.S., Marzillier, J.Y., Mageeney, C.M., MacGibeny, M.A., Li, W., **Lee, J.Y.**, Kinnersley, M.A., **King-Smith, C.**, King, R.A., Kenna, M.A., Kearse, M.G., Johnson, B.K., Johnson, A.A., Johnson, C.M., Hughes, L.E., Harrison, M., Guild, N.A., Gilbert, J.L., Fillman, C.L., Felton, C.M., Dunbar, D.A., Dennehy, J.J., DeJong, R.J., Carson, S., Burnett, S.H., Breakwell, D.P., Berrios, J.E., Benjamin, R.C., Anderson, J.J., Bradley, K.W., Khaja, R., Lee, E., Barker, L.P., Lewis, M.F., Jordan, T.C., Cresawn, S.G., Grace, M.A., Pope, W.H., Ko, C., Russell,

D.A., Peebles, C.L., Lawrence, J.L., Hendrix, R.W., and Hatfull, G.F. **2010**. Mycobacteriophage Redrock, complete genome. GenBank Accession Number GU339467.

Popular articles

King Smith, C. “Argonaut introduces novel medicinal chemistry system”, Genetic Engineering News, August 15, 1996.

King Smith, C. “Immunoassay techniques for rapid environmental sample analysis”, Genetic Engineering News, May 15, 1996

King Smith, C. “Spectra Biomedical sees future in personalized genetic profiling services”, Genetic Engineering News, February 15, 1996

Guest Lectures:

Spring, 2009. Invited seminar, Texas State University, San Marcos, TX

Spring, 2007 Invited seminar, Brooklyn College, NY

Fall, 2004 Invited seminar, Dickinson College, Carlisle PA

Spring, 2004 Invited seminar, Immaculata College, Malvern, PA

Spring, 2002 Invited seminar, Department of Biology, Villanova University, Villanova PA

Fall, 2000 Seminar for University of the Sciences, Philadelphia Chapter of Sigma Xi

Spring, 2000 Invited seminar, Cell Motility interest group at the National Institutes of Health, Bethesda, MD

Fall, 1996 Invited seminar, Department of Biology, Lehigh University, Bethlehem, PA

Fall, 1996 Seminar for Saint Joseph’s University Chapter of Sigma Xi

Fall, 1994 Seminar for Fall Biology Colloquium, Department of Biology, Sonoma State University, California.

Membership in Professional Societies:

American Society for Cell Biology

Association for Research in Vision and Ophthalmology

Sigma Xi, the Scientific Society

Alpha Sigma Nu (Jesuit Honor Society)

Professional activities/conferences/workshops :

2019 American Society for Cell Biology, Minority Affairs Committee IPERT grant, Achieving Career Transitions Workshop, Panelist and Moderator for panels on Finding a position at a primarily undergraduate institution (PUI) and conducting research at a PUI. University of North Carolina, Chapel Hill,

2017 American Association of Colleges and Universities, Seminar for Department Chairs, San Diego, CA.

2014 Palmer, J., Szurgot, M., Tremoglie, M., Adjei-Danquah, E., Jenkins, V., Corbacio, C. E., Isackman, A. C., Julian, J. F., Maxton, J. A., Oakes, S. A., Ossont, B. P., Patel, P. B., Pepe, V.M., Schiller, I. B., Storm, E. K., Travers, M. E., Wall, J. C., Ahmed, A., Bernardo, T., Ferroni, G., Johnson, J., Muretta, M., Denigris, D., London, S., Lee-Soety, J. and **C King-Smith**. 6th Annual SEA-PHAGES Symposium. Janelia Farm Research Campus, Ashburn, VA. June 13-15, 2014 (*poster presentation*)

2014 Science Education Association Phage Hunters Advancing Genomics Education (SEA-PHAGES) Advanced *In silico* workshop, June 15 – 18, HHMI Headquarters, Chevy Chase, MD

2013 Association of American Colleges and Universities Meeting: Transforming STEM Education: Inquiry, Innovation, Inclusion, and Evidence. Network for Academic Renewal Conference. October 31-November 2, 2013. San Diego, CA

2013 Johnson, J.E., Freeman, C.M., Temme, D.W., Surillo Gonzalez, M.R., Radigan, N.J., Pyfer, K.B., Porzucek, Philogene, A.J., London, S.C., Logan, K.R., Ferroni, G.F. Denigris, D.M., Collins, J.M., Casey, J.P., Buhalo, D.J., Ahmed, Lahoda,

- L.A., Lee-Soety, J.Y., and C. **King-Smith**. The Phages of the Philadelphia Zoo: Isolation and characterization of fifteen mycobacteriophages including DTDevon (C1) and Oaker (H1) from zoo animal enclosures. 5th Annual SEA-PHAGES Symposium. Janelia Farm Research Campus, Ashburn, VA. June 8-10, 2012. (*poster presentation*)
- 2013 Muretta, M.M., SC London, VC Angelucci, SM Burke, M Del Buono, A M Dell’Arciprete, J M Eastman, P Freda, AJ Giacobbo, J N Harrison, BA Leconey, VL Martino, TA Mengel, CV Patel, WJ Puetz, LM Robinson, AM Senss, MJ Southwell, FL Thelmo, KN Turro, AC Vilbert, W Weiss, **C King-Smith**, JM Braverman, and JY Lee-Soety. Estimating phage genome sizes by pulsed-field gel electrophoresis for preliminary cluster identification. *Ibid.* (*poster presentation*)
- 2012 Dougher, A., Kesaris, A., Bodnar, B., Martino, O., Xander, C., Adolf, A., Ashford, R., Bergmann, A., Brandley, V., Brindle, S., Callaghan, C., Collins, C., Curcillo, C., DiGuilio, K., Eichman, B., Emmert, R., Ezzo, D., Fenton, E., Galassi, M., Guilliams, J., Ito, A., Jones, J., Joyce, A., Kelbon, N., Lahoda, L., Mai, T., Marano, C., Salhany, S., Slattery, E., Sparrow, A., Spencer, S., Wagner, M., Young, L., **King-Smith, C.**, and J.Y. Lee-Soety. The phages of Saint Joseph's University: Annotations of Phage Flux (A4), Winky (L2), and identification of cluster F and A phages from Eastern Pennsylvania and New Jersey. 4th Annual SEA-PHAGES Symposium. Janelia Farm Research Campus, Ashburn, VA. June 8-10, 2012. (*platform and poster presentations*)
- 2011 Shannon B. Spencer, Thomas J. Bernardo, Brittany H. Bodnar, Carol M. Collins, Nicholas Crippen, Alexander J. DeBernardo Bernadette M. Eichman, Catherine E. Elorette, Adeline M. Fagan, Tyler A. Hardy, Amanda V. Laznicka, Gina M. Montone, Gina S. No, Kristina A. Orbe, Breiah L. Paterson, Melissa A. Quinn, Franklin L. Thelmo, Marisa H. Wagner, Megan L. Walker, Shanise Williams, Caitlin J. Callaghan, Jenna N. Harrison, Victoria L. Martino, **Christina King-Smith**, and Julia Y. Lee-Soety. The Isolation, Purification, and Genomic Sequencing of Mycobacteriophage BPBiebs31 3rd Annual National Genomics Research Initiative (NGRI) Symposium, HHMI Janelia Farm, Ashburn, VA (*platform presentation*)
- 2011 Lee-Soety, J. Y. and **C. King-Smith**. Phage Safari at Saint Joseph’s University- Year Two: Lessons Learned. *Ibid.*, (*poster presentation*)
- 2010 HHMI Program Directors and Professors Meeting, Chevy Chase, MD
Poster presentation: King-Smith, C. Increasing Diversity and Ethics Awareness in an Undergraduate Summer Research Program: The HHMI Research Fellow and Research Scholar Programs at Saint Joseph’s University
- 2010 Lupey, L.*., Sparrow, A.L*., Southwell, M.J*., Smith, K.*., Rafferty, J.P*., Nicoletto, R.E*., Nguyen, K.L*., Martino, V.L*., Maris, A.P*., Julian, N.W*., Irwin, C.* E., Harrison, J.N., Filice, M.R., Chea, E.P., Callaghan, C.J., Bahr, T.J., MacGibeny, M. ^, Lee-Soety, J.Y., and **C. King Smith**. Isolation, Purification, and Genomic Analysis of Mycobacteriophage Daisy. . 2nd Annual National Genomics Research Initiative (NGRI) Symposium, HHMI Janelia Farm, Ashburn, VA
- 2010 **King-Smith, C.** and J. Lee-Soety. Grab your Pith Helmet: Phage Safari *In Situ* at Saint Joseph’s University. *Ibid.*
Lee-Soety, J. and **C. King-Smith**. Annotating Mycobacteriophage Daisy for the Freshman *In Silico* Genetics Lab at Saint Joseph's University. *Ibid.* (*poster presentations*).
- 2009 HHMI Science Education Alliance (SEA), Phage genomics workshops, *In situ* (June) and *In silico* (December), and 1st Annual NGRI Symposium (June), Janelia Farm, Ashburn, VA.
- 2008 HHMI Program Directors and Professors Meeting, Chevy Chase, MD
- 2008: participated in “Ethics Across the Curriculum” workshop at SJU
- 2007 Panelist/Presenter at a Secondary School Science Symposium, Academy of Notre Dame de Namur, Villanova PA
- 2005 Gordon Research Conference on Motile and Contractile Systems. *Poster Presentation:* Barsoum, IB^, Tacelosky, D*, Forman S, Cooper, S, Heil, P* and **C. King Smith**. “Myosin II-dependent and –independent melanosome motility in fish retinal pigment epithelial (RPE) cells”.
- 1997- present: Attended the Annual meeting of the American Society for Cell Biology. Present posters each year with undergraduate research students as co-authors or primary authors (all published abstracts)
- 2003: Gordon Research Conference on Motile and Contractile Systems. *Poster Presentation:* McNeil, E.L.*., D. Tacelosc*y, P. Basciano*, K. Klinger*, S. Deacon*, B. Stewart*, N. Petruzzi*, C.

- Osborn*, C. Fox*, J.R. Sellers, and **C. King Smith**. "Actin-dependent motility of melanosomes from fish retinal pigment epithelial (RPE) cells investigated using *in vitro* motility assays"
- 2003: National Conference on Undergraduate Research (NCUR), University of Utah, Salt Lake City, UT. Two research students each presented a poster; chaperoned six student attendees
- 2001: Attended NSF Course Curriculum and Laboratory Improvement (CCLI) Program One-day workshop, Washington, DC.
- 2000 Attended "IACUC 101" and ARENA 2000, workshops for Institutional Animal Care and Use Committee (IACUC) members. Sponsored by the Applied Research Ethics National Association (ARENA) and Public Responsibility in Medicine and Research (PRIM&R)
- 1999 attended "IACUC V: The Charge and the Challenge"- An interactive seminar for IACUC members sponsored by the New Jersey Association for Biomedical Research
- 1999 National Conference on Undergraduate Research (NCUR), University of Rochester, Rochester, NY. Two research students presented a poster; chaperoned seven student attendees
- 1997 Regional Project Kaleidoscope Meeting, One-day conference on teaching. Lehigh University
- 1997 Council on Undergraduate Research (CUR) April Dialogue, "The Teaching-Research Connection" held at the National Institutes of Health, Bethesda, MD
- 1997 Attended workshop: "Effective communication: The Science of Scientific Writing" sponsored by the American Society for Cell Biology

Undergraduate student researchers mentored:

These students conducted research for course credit, as volunteer research students, or during the summer. Current positions of alumni are noted.

Ngan Pham (class of 1998). M.D., Philadelphia College of Osteopathic Medicine (PCOM)

Sean Deacon ('99) Ph.D, University of Illinois, Champaign-Urbana

Meagan Cheney ('99)

Melisa LaSpada ('00)

Paul Basciano ('01) - medical school; graduate of Columbia College of Physicians and Surgeons

Tim Carey ('00) M.A. recipient, medical school, PCOM

Ben Stewart ('01) medical school

Ryan Stidham ('01) medical school, University of Virginia

Elizabeth McNeil ('01, M.A. 2003) research technician

Rose Arone ('02) - medical school

Catherine Klinger ('02)

Kathleen McElwee ('02) medical school, Temple University

Crystal Fox ('03) degree program in Diagnostic Imaging, Thomas Jefferson University

Paul Damiani ('03) research technician, biopharmaceutical company in Boston, MA

Mai Linh Hoang ('03)

Nicholas Petruzzi ('04) medical school, Thomas Jefferson University

Carla Osborn ('04)

Lauren Susco ('04)

Daniel Zancetti ('04) medical school

Diana Tancelosky ('06) honors research, 2003, 2005. MD-PhD program at Penn State-Hershey

Ronald Williams ('06)

Brian Biallas (M.S. '04/B.S. '03) High school science teacher

Ronald Vagnozzi ('07) Ph.D, Temple University, Research Fellow, Cincinnati Children's Hospital Medical Center

Patrick Gannon ('08) Ph.D, University of Pennsylvania

Jessica Oates ('08) M.S. Saint Joseph's University; Ph.D program, University of Texas

Joseph Candelore ('08) medical school

Ashley Morrison ('09) medical school

John Buonomo ('11)- changed major to Philosophy
Laura Black ('10) biopharm industry
Amanda Miller ('10) medical school, PCOM
Christopher Carsia ('10)
Catherine Udomsak ('10)
Jacyn Cortes ('11) physical therapy school
Alison Coleman ('11)
Mazvita Nyamukapa ('11) Masters in Public Health, Thomas Jefferson Univ.
Gregory Cannarsa ('11) medical school, Thomas Jefferson University
Samantha Seitter ('10)
Maggie Castile ('11) Medical school
Michael Hughes ('11) Post-baccalaureate pre-med program
Kevin Cannon ('12) Ph.D. program, Chemical Biology, Dartmouth University
Lauren Hamilton ('12) high school science teacher
Audrey Fritzingler ('12)
Nicole Fischer ('12) Ph.D. program, Biology, University of Arizona
Ashley Green ('13)
Carol Collins ('14) Masters in Public Health candidate, Temple University
Tamra Childress ('15)
Evan Gilmore ('15) M.S. candidate, Rutgers
Lindsay Lahoda ('15) medical school
Megan O'Donnell ('15) medical school, Thomas Jefferson University
Audrey Malhotra ('15) biomedical research position
Nathan L'Etoile ('16) medical school, Thomas Jefferson University
Eric Adjei-Danquah ('17)
Melissa Messalti ('17)
Elizabeth Del Rio ('19)
Joseph Quinlan ('19)
Madison Jeffries ('19)
Martyna Habdas ('20)
Markcus Lee ('20)
Thi Nguyen ('21)

Master's Students mentored

Lauren Quezada M.A. 2013, present occupation: biomedical research
Taskeen Mujtaba M.S. 2008 Ph.D candidate
Satya Gunnam. M. S. 2008, Ph.D candidate
Ivraym Barsoum, M.S. 2004. Ph.D. University of Illinois, Champaign-Urbana
Elizabeth McNeil, M.A. 2003

Other presentations at scientific meetings (* denotes undergraduates; ^ denotes masters students)

- 2016 L'Etoile*, N. and **C. King-Smith**. Kinetics of phagocytosis and investigation of chemotaxis in choanoflagellates, *Salpingoeca rosetta*. Twenty-seventh Annual Saint Joseph's University Sigma Xi Student Research Symposium.
- 2015 L'Etoile*, N., Adjei-Danquah*, E., Gilmore*, E. and **C. King-Smith**. Kinetics of vacuole formation in choanoflagellates, *Salpingoeca rosetta*, and choanocytes of *Porifera*. Twenty-sixth Annual Saint Joseph's University Sigma Xi Student Research Symposium.
- 2015 Malhotra*, A. and **C. King-Smith**. Detection of PKA substrates phosphorylated at serine and threonine residues within fish retinal pigment epithelium. *Ibid*.
- 2015 O'Donnell*, M. and **C. King-Smith**. RPE65 distribution and retinomotor movements in eyes of bluegill sunfish and albino catfish. *Ibid*.

- 2014 Collins*, C., O'Donnell*, M. and **C. King-Smith**. Distribution of the visual cycle isomerase, RPE65, in light- and dark-adapted fish retinal pigment epithelium. *Ibid.*
- 2014 L'Etoile*, N, Adjei-Danquah*, E, and **C. King-Smith**. Kinetics of food uptake in different cell types of choanoflagellates (*Salpingoeca rosetta*). *Ibid.*
- 2014 Palmer*, J., *et al.*.... Lee-Soety, J. and **C. King-Smith**. Phages of Saint Joseph's University and the Philadelphia Zoo: From A3 to E. *Ibid.*
- 2013 Temme*, D. *et al.*....Lee-Soety, J., and **C. King-Smith**. The Phages of the Philadelphia Zoo. Twenty-fourth Annual Saint Joseph's University Sigma Xi Student Research Symposium.
- 2012 Cannon*, K.S., L. Hamilton*, M. Hughes*, G. Cannarsa*, D. S. Zuzga, and **C. King-Smith**. Effect of Myosin 1e Knockdown on Cell Adhesion, Spreading, and Random Cell Migration. Twenty-third Annual Saint Joseph's University Sigma Xi Student Research Symposium.
- 2012 Fischer*, N.E. and **C. King-Smith**. Regulation of Pigment Granule Aggregation by Protein Kinase A in Fish Retinal Pigment Epithelial (RPE) Cells. *Ibid.*
- 2011 Cannarsa*, G. Hamilton*, L., Zuzga, D. and **C. King Smith**. Knockdown of myosin 1e accelerates cell migration in B16F1 mouse melanoma cells. Twenty-second Annual Saint Joseph's University Sigma Xi Student Research Symposium.
- 2011 Cannon*, K., Zuzga, D. and **C. King Smith**. Investigating the role of myosin 1e in cellular migration and integrin trafficking in B15F1 mouse melanoma cells. *Ibid.*
- 2011 Fischer*, N., Nyamukapa*, M. and **C. King Smith**. Localization and role of kinase A in pigment granule migration in retinal pigment epithelial cells. *Ibid.*
- 2011 Hughes*, M. and **C. King Smith**. Investigating cellular adhesion in B16F1 mouse melanoma cells. *Ibid*
- 2011 Quezada, L., Zuzga, D. and **C. King-Smith**. Effect of myosin 1e on the invasion properties of B16F1 murine melanoma cells. *Ibid.*
- 2010 Nyamukapa, M.* and C. King-Smith. Investigating the role of protein kinase A in retinal pigment epithelial cells. Twenty-first Annual Saint Joseph's University Sigma Xi Student Research Symposium
- 2010 Lupey, L., Sparrow, A.L., Southwell, M., Smith, K., Rafferty, J.P., Nicoletto, R.E., Nguyen, K.L., Martino, V.L. Maris, A.P., Julian, N.W., Irwin, C.E., Harrison, J.N., Filice, M.R., Chea, E.P., Callaghan, C.J., Bahr, T.J., Lee, J.Y., and C. King Smith. Isolation, purification, and DNA extraction of *Mycobacterium smegmatis* bacteriophage. Twenty-first Annual Saint Joseph's University Sigma Xi Student Research Symposium.
- 2010 Black, L.*, Seitter, S*., Zuzga, D., and C. King-Smith. Effect of myosin 1e knockdown on lamellipodial dynamics in B16F1 mouse melanoma cells. Twenty-first Annual Saint Joseph's University Sigma Xi Student Research Symposium, and the 101st Annual Meeting of the American Association for Cancer Research, April 2010, Washington, DC.
- 2010 Cannarsa, G.*, Quezada, L.^, Zuzga, D., and C. King-Smith. Examining the role of myosin 1e in cellular migration and lamellipodial dynamics in B16F1 mouse melanoma cells. *Ibid.*
- 2010 Cicco, C., Castile, M., Zuzga, D. and C. King-Smith. Myosin 1e overexpression inhibits cell migration and alters cell surface integrins. *Ibid.*
- 2010 Sullivan, M., Fritzingler, A., Cannon, K., Zuzga, D., and C. King-Smith. Myosin 1e localizes at invadopodia and is downregulated in colon cancer. *Ibid.*
- 2009 Black, L*, E M Ostap, and C. King-Smith. Role of myosin 1e in lamellipodial dynamics. Twentieth Annual Saint Joseph's University Sigma Xi Student Research Symposium.
- 2009 Black, L*, M Mawhinney, P Habdas, and C. King-Smith. Cytotoxicity of a novel porphyrin compound with potential for use in photodynamic therapy. *Ibid.*
- 2009 Miller, A* and C. King-Smith. Immunolocalization of myosin IIa, rho, and tropomyosin in isolated RPE cells. *Ibid.*
- 2009 Carsia, C*., A. Morrison*, A. Miller*, J. Cortez*, J. Oates*, and C. King-Smith*. Effect of blebbistatin on melanosome aggregation induced by the phosphatase inhibitor, calyculin A, in fish retinal pigment epithelium. *Ibid.*

- 2008 Candelore, J* and C. King Smith. Labeling of beta-integrin in focal contacts of B16F1 mouse melanoma cells. Nineteenth Annual Saint Joseph's University Sigma Xi Student Research Symposium.
- 2008 Gannon, P* and C. King Smith. Concanavalin A inhibits melanosome aggregation but not dispersion in retinal pigment epithelial cells. *Ibid.*
- 2008 Oates, J* and C. King Smith. Effect of the phosphatase inhibitor, Calyculin A, on melanosome motility in fish retinal pigment epithelium. *Ibid*
- 2007 Gannon, P* and C. King-Smith. Concanavalin A inhibits melanosome aggregation in isolated retinal pigment epithelial cells. Eighteenth Annual Saint Joseph's University Sigma Xi Student Research Symposium.
- 2007 Vagnozzi, R and C. King-Smith. Determination of actin filament polarity in retinal pigment epithelial cells of green sunfish, *Lepomis cyanellus*. *Ibid*
- 2006 Tacosky, D.M. *, P. Heil*, S. Forman, S. Cooper, and C. King Smith. Computational model of actin-dependent transport in fish retinal pigment epithelial cells. Seventeenth Annual Saint Joseph's University Sigma Xi Student Research Symposium and the 60th Annual Eastern Colleges Science Conference
- 2005 *Ibid.*, Sixteenth Annual Saint Joseph's University Sigma Xi Student Research Symposium.
- 2004 Barsoum, I.^ and C. King-Smith. Effect of myosin II inhibition on melanosome movement in fish retinal pigment epithelial (RPE) cells. Fifteenth Annual Saint Joseph's University Sigma Xi Student Research Symposium
- 2004 Biallas, B^., R. Williams*, D. Tacosky*, S. Deacon*, C. Osborn*, L. Susco*, and C. King-Smith. Melanosome motility and identification of rab27a, myosin VIIa, and the actin nucleating protein, arp3, in fish retinal pigment epithelial (RPE) cells. *Ibid*
- 2004 Petruzzi, N*., D. Zancetti* and C. King-Smith. Investigation of retrograde actin flow and rab27a localization in fish retinal pigment epithelial (RPE) cells. *Ibid*
- 2003 Fox, C*. Damiani, P*., Williams, R*. and King-Smith, C.. "Using SDS-PAGE and immunoblotting to test cross-reactivity of proteins important in pigment granule transport in retinal pigment epithelial cells of fish". Fourteenth Annual Saint Joseph's University Sigma Xi Student Research Symposium
- 2003 Tacosky, D* and King-Smith, C. "Observing Actin-dependent Motility of Melanosomes Isolated From Retinal Pigment Epithelial Cells of Green Sunfish, *Lepomis Cyanellus*, in a Sliding Filament Assay" . *Ibid.*
- 2003 Damiani, P*., Williams, R*., McNeil, E.L., and King-Smith, C. Testing cross-reactivity of antibodies to retinal pigment epithelial cells and retinal proteins from three different fish species. *Ibid*
- 2003 Osborn, C*., Petruzzi, N*., Zanchetti, D*., and King-Smith, C. Using deconvolution microscopy to study actin and microtubule organization in fish retinal pigment epithelial cells". *Ibid.*
- 2003 Hoang, M.-L*., and King-Smith, C. An electron microscopy study of the intracellular structure of dissociated retinal pigment epithelial cells from green sunfish, *Lepomis cyanellus*. *Ibid.*
- 2002 McElwee, K* and King-Smith, C. "Affects of micromanipulation and microsurgery on pigment granule movement within projections of isolated retinal pigment epithelial cells". Thirteenth Annual Saint Joseph's University Sigma Xi Student Research Symposium.
- 2002 McNeil, E.L. *, Fox, C., Klinger, C.A. *, Osborn, C., Petruzzi, N., Stewart, B., and C. King-Smith. Pigment granules from fish retinal pigment epithelial (RPE) cells undergo plus-end directed motility in assays using the Characean alga, *Nitella axillaris*". *Ibid.*
- 2001 Basciano, P.A.* and King-Smith, C. Retrograde movement of surface-attached particles and actin-incorporated fluorescent speckles as indicators of retrograde flow within teleost retinal pigment epithelial cells. Saint Joseph's University Twelfth Annual Sigma Xi Symposium.
- 2001 Stidham, R.W*., Campbell, A.C. and King Smith, C. "Developing techniques for expression of green fluorescent protein in retinal pigment epithelial cells of *Lepomis cyanellus*. *Ibid.*

- 2001 McNeil, E.L.*, Basciano, P.A.*, Stewart, B.L.*, Klinger C. *, and King-Smith, C. Isolated pigment granules from teleost retinal pigment epithelial cells move along actin cables of the alga, *Nitella axillaris*. *Ibid*.
- 2000 Basciano, P.A. *, Deacon, S. *, Sellers, J.R., and King Smith, C. Actin-dependent pigment granule motility and retrograde movement of surface-attached microspheres in isolated retinal pigment epithelial cells" Saint Joseph's University Eleventh Annual Sigma Xi Symposium.
- 1999 Basciano, P. *, Deacon, S. *, and King-Smith, C. Immunolocalization of myosin VIIa in teleost retinal pigment epithelial (RPE) cells". Saint Joseph's University Tenth Annual Sigma Xi Research Symposium
- 1999 Carey, T.*, Cheney, M. *, and King-Smith, C. Immunolocalization of tubulin in the ciliated protozoan, *Tetrahymena pyriformis*". *Ibid*.
- 1999 Cheney M. * and King-Smith, C. Phagosome movement in the ciliated protozoan, *Tetrahymena pyriformis*. *Ibid* .
- 1998 Pham, N.B.* and King-Smith, C. The effects of jasplakinolide on pigment granule movements in retinal pigment epithelium of green sunfish, *Lepomis cyanellus*. *Ibid*.
- 1998 Cheney, M.* and King-Smith, C. The effects of jasplakinolide and cytochalasin B on phagocytosis in *Tetrahymena pyriformis*". Saint Joseph's University Ninth Annual Sigma Xi Research Symposium

M.S. candidates who have done research rotations in my lab:

1996 – 2019: 23 M.S. students conducted 4-week research rotations

Service on Graduate Committees:

1996 – 2017: Served on 10 current or past M.S. or M.A. graduate committees at SJU

Bonnie Howell, Ph.D. 1998, Lehigh University

Michael Gotesman, Ph.D. 2011, City University of New York (CUNY) – Brooklyn College

Service in Professional Societies:

President, Saint Joseph's University Chapter of Sigma Xi, 1999-2000

Table Leader at ASCB Annual Meeting Women in Cell Biology round table career discussions, 2009 – present.

Member, Minorities Affairs Committee, American Society for Cell Biology, 2016 - present

University and College Service:

Professional School Committee- charged with studying the formation of a third, professional school at SJU, Fall 2017

Dean Search Committee, Spring 2017

Advisory Committees for Behavior Neuroscience minor, Environmental Science program, Animal Studies minor, Chemical Biology major, 2014 – present

Science Center Safety Committee, 2014 - present

University Council, Math/Natural Science representative, 2014-2016

University Council Executive Committee, 2015-2016

Advisory committee for Interim Provost search, 2014

Middle States Taskforce IV on Governance, 2012-2013

Chair, College Council, 2011 – 2013.

Search committee for Director of the CAS Advising Center, 2010

Faculty Senate Executive Council: 2009 – 2011

Executive Committee member: APP/FPP Liaison

University Council Executive Committee, 2009 - 2010

Summer Scholars Selection Committee: 2006 - 2015

Health Professions Advisory Committee, 2002 – 2010, 2014 - 2016

Institutional Animal Care and Use Committee 1998 - 2009 (Vice Chair 1999 - 2009)
Faculty Senate Executive Council: 2005 -2007
 Executive Committee member: APP/FPP Liaison
Grievance Committee: 2003 - 2006
Faculty Procedures and Policies Committee, 2002 – 2004
 Service on FPP subcommittees:
 Mandate to study definitions of full-time ranked service for teaching
 Mandate to study peer evaluation of faculty
 Mandate on term limits for visiting faculty
 Mandate on clarification of rights of faculty with joint appointments
FPP representative to the Advisory Board on Faculty Compensation, 2003-2004
Marshall, Graduate Commencement, May 2004
Reader, Undergraduate commencement, 2008 - 2012
Middle States Taskforce IV on Faculty, 2001- 2002
College of Arts and Sciences Council, Math and Natural Sciences Seat, 1998 - 2000
Marshall and Reader, Undergraduate Commencement, May 1998

Departmental Service:

Chair, 2014 - present
Curriculum Committee, 2011-2014
Faculty search committee, Prokaryotic biologist 2013; Physiologist 2014
Department Advisor: 2005 – 2011
Department Coordinator: 2005 - 2011
Advisory Committee for the BEAGLE Program at Camp Darwin (Biology Experience Aimed at Growth and Learning Excellence)- pre-college program for incoming freshman Biology majors (2009 – 2011); faculty lecturer for BEAGLE, 2009-2013.
Faculty search committee, Biophysicist, 2010
Biology Department Seminar coordinator (1998-2004), Seminar Committee (Chair, 2004 – 2008)
Biology Department Curriculum Committee, 2006-2008 (Chair) , 2001 – 2004 (chair, 2003-2004); 2011 – 2013 (Chair, 2013 – 2014)
Biology Department Self Study/External Review team (with P. Tefft and J. Watrous) 2006 - 2007
Biology Department Graduate Admissions Committee, 1997-2004
Faculty chaperone for National Council on Undergraduate Research meeting, April 1999, March 2003
Search committee, Visiting Assistant professor position, 1999
Committee to select undergraduate student researchers for Summer, 2000
Scholarship Day Committee 1997-1998

Service in Student organizations:

Faculty advisor, American Institute for Biological Sciences (AIBS) student club, 1998 – 2004

Community Service:

Volunteer at homeless shelter Holy Apostles Church, sponsored by the church and the organization Connect-By-Night (church hosts guests overnight for one month/year, 1998 - present)