###### Claire E. Walczak

###### Indiana University

###### Medical Sciences Program

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**Education:**

* 1. B.S. Chemistry, Rensselaer Polytechnic Institute
  2. Ph.D. Biochemistry, University of Wisconsin-Madison

1993-1998 Post-doctoral Research Associate, University of California-San Francisco

**Academic Appointments:**

1998-2004 Assistant Professor of Biochemistry and Molecular Biology,

Medical Sciences Program, Indiana University School of Medicine

1998-present Adjunct Faculty, Department of Biology, Indiana University

1998-present Fellow, Indiana Molecular Biology Institute

2000-present Member, IU Cancer Center

2004-2008 Adjunct Associate Professor of Anatomy and Cell Biology, Indiana University School of Medicine

2004-2008 Associate Professor of Biochemistry and Molecular Biology,

Medical Sciences Program, Indiana University School of Medicine

2006-2007 Sabbatical, Indiana University Biology Department

2007-2012 Deputy Director, Cell Growth and Differentiation Node of Indiana University METACyt Initiative

2008-present Professor of Biochemistry and Molecular Biology,

Medical Sciences Program, Indiana University School of Medicine

2008-present Adjunct Professor of Anatomy and Cell Biology, Indiana University School of Medicine

2008-2017 Executive Director, Indiana University Light Microscopy Imaging Center

2014-2015 Sabbatical, Indiana University School of Medicine

2015-2016 Co-Director, Cell, Molecular and Cancer Biology Graduate Program

2017-present Asst. Director for Research, Medical Sciences, Indiana University School of Medicine

**Honors and Awards:**

1986 Phi Lambda Upsilon (National Chemistry Honor Society)

1994-1996 NIH Postdoctoral Fellowship

1996-1998 DOE Army Breast Cancer Fellowship

2001 Leukemia/Lymphoma Society Scholar Award

2003 American Cancer Society Research Scholar Award

2003 Women in Cell Biology Junior Career Recognition Award from the American Society for Cell Biology

2013 Elected to Council for American Society for Cell Biology

2017 NIH MIRA Award

2017 Research Exemplar for Professionalism and Integrity in Research

2018 IUSM Excellence in Faculty Mentoring

2018 Fellow of the American Society for Cell Biology

**RESEARCH FUNDING:**

### **Present Funding: Extramural**

1. Agency: NIH R35 GM122482-02

Title: Mechanisms of Mitotic Fidelity

Duration: 6/1/17-5/31/22

Amount: $1,450,000 direct costs

Role: Principal Investigator

2. Agency: NIH R01 GM113107-04

Title: Polyploid Cell Cycle Regulation and Genome Instability

Duration: 9/1/15-8/31/19

Amount: $790,000 direct costs ($181,700 to Walczak)

Role: Co-Principal Investigator with Brian Calvi

1. Agency: NIH S10 OD024988-01

Title: Acquisition of a DeltaVision OMX-SR Imaging System

Duration: 3/13/18-3/12/19

Amount: $599,775

Role: Principal Investigator

###### Present Funding: Intramural

1. Indiana University Clinical Translational Sciences Institute:

Title: Transcriptome Remodeling of Polyploid and Drug Resistant Cells

Duration: 7/1/2017-6/30/2019

Amount: $10,000

Role: Co-Principal Investigator with Brian Calvi

1. 100 Voices of Hope Pilot Project

Title: Racial Variation in Cancer Pathways Contribute to Breast Cancer Incidence

Duration: 6/1/2017-5/31/2019

Amount: $100,000

Role: Collaborator, PI: Hari Nakshatri

###### Pending Funding: Extramural

1. Agency: NIH R03 CA23325-01

Title: MCAK Inhibitors as Synergizing Agents with Taxanes

Duration: 4/1/19-3/31/21

Amount: $100,000 direct costs

Role: Principal Investigator

Pending IRG Review

###### Previous Funding: Extramural (past 5 years listed)

1. Agency: NIH R01 # GM59618-16

Title: Control of Microtubule Dynamics for Spindle Assembly and Chromosome Segregation

Duration: 9/1/14- 8/30/17

Amount: $771,000 direct costs

Role: Principal Investigator

2. Agency: NIH R13 Research Conference

Title: FASEB Meeting on Mitosis: Spindle Assembly and Function

Duration: 7/1/12-6/30/13

Amount: $5,000

Role: Principal Investigator

3. Agency: NSF Research Conference Grant

Title: FASEB Meeting on Mitosis: Spindle Assembly and Function

Duration: 7/1/12-6/30/13

Amount: $7,500

Role: Principal Investigator

4. Agency: NIH R01 # GM59618

Title: Mechanisms of Mitosis

Duration: 9/1/09- 8/31/14

Amount: $920,000 direct costs

Role: Principal Investigator

**Previous Funding: Intramural (past 5 years listed)**

1. Indiana University Clinical Translational Sciences Institute:

Title: Cell Cycle Remodeling and Genome Instability

Duration: 2/1/15-1/31/17

Amount: $4,400

Role: Principal Investigator

1. Indiana University Clinical Translational Sciences Institute:

Title: Analysis of the Microtubule Depolymerizing Kinesin, MCAK, as a Prognostic Marker for Taxane Resistant Breast Cancers

Duration: 7/1/2013-6/30/2015

Amount: $3,500

Role: Principal Investigator

1. Indiana University Shared Core Facilities

Title: MCAK, as a Prognostic Marker for Taxane Resistant Breast Cancers

Duration: 9/1/13-8/31/15

Amount: $10,646

Role: Principal Investigator

1. Indiana University Simon Cancer Center NCI Near Miss Program:

Title: MCAK as a Prognostic Marker for Taxane Resistant Breast Cancers

Duration: 1/1/2014-12/31/2016

Amount: $30,000

Role: Principal Investigator

**Publications:**

## **Research, Scholarship or Creative Activities (Primary Research)**

1. Csatorday, K., Walczak, C., and Warden, J.T. (1986). The Mechanism of Fatty Acid Inhibition in Photosystem II. Prog. Photosynth. Res. Int. Cong. Photosynth. 7th. 1: 293-296.

2. Walczak, C., Kumar, S., and Warden, J.T. (1987). Tetranitromethane Modification of Photosystem 2. Photosynth. Res. 12: 145-154.

3. Walczak, C.E., Marchese-Ragona, S.P., and Nelson, D.L. (1993). Immunological Comparison of 22S, 19S, and 12S Dyneins of *Paramecium* Cilia. Cell Motil. Cytoskeleton 24: 17-29.

4. Walczak, C.E., Anderson, R.A., and Nelson, D. L. (1993). Identification of a Family of Casein Kinases in *Paramecium*: Biochemical Comparison and Cellular Localization. Biochem. J. 296: 729-735.

5. Walczak, C.E. and Nelson, D.L. (1993). *In vitro* Phosphorylation of Ciliary Dyneins by Protein Kinases from *Paramecium*. J. Cell Sci. 106: 1369-1376.

6. Hochstrasser, M., Carlson, G.L., Walczak, C.E., and Nelson, D.L. (1996). *Paramecium* Has Two Regulatory Subunits of Cyclic AMP-Dependent Protein Kinase, One Unique to Cilia. J. Euk. Microbiol. 43: 356-362.

7. Walczak, C.E., Mitchison, T.J., and Desai, A. (1996). XKCM1: A Xenopus Kinesin-Related Protein That Regulates Microtubule Dynamics During Mitotic Spindle Assembly. Cell 84: 37-47.

8. Walczak, C.E., Verma, S., and Mitchison, T.J. (1997). XCTK2: A Kinesin-Related Protein That Promotes Mitotic Spindle Assembly in Xenopus Egg Extracts. J. Cell Biol. 136: 859-870.

9. Desai, A., Deacon, H.W., Walczak, C.E., and Mitchison, T.J. (1997). A Method that Allows the Assembly of Kinetochore Components onto Chromosomes Condensed in Clarified Xenopus Egg Extracts. Proc. Natl. Acad. Sci. 94: 12378-12383.

10. Walczak, C.E., Vernos, I., Mitchison, T.J., Karsenti, E., and Heald, R. (1998). A Model for the Proposed Roles of Different Microtubule Based Motor Proteins in Establishing Spindle Bipolarity. Curr. Biol. 8: 903-913.

11. Sharp, D.J., McDonald, K.L., Brown, H.M., Matthies, H.J., Walczak, C.E., Vale, R.D., Mitchison, T.J., and Scholey, J.M. (1999). Visualization of the Bipolar Kinesin, KLP61F, on Microtubule Bundles within Spindles of Drosophila Early Embryos. J. Cell Biol. 144: 125-138.

12. Desai, A., Verma, S., Mitchison, T.J., and Walczak, C.E. (1999). Kin I Kinesins are Microtubule Destabilizing Enzymes. Cell 96: 69-78.

13. Tournebize, R., Popov, A., Kinoshita, K., Ashford, A.J., Rybina, S. Mayer, T., Walczak, C.E., Karsenti, E., and Hyman, A.A. (2000). Control of Microtubule Dynamics Requires the Antagonistic Activities of XMAP215 and XKCM1. Nature Cell Biol. 2: 13-19.

14. Wilde, A., Lizarraga, S. Zhang, L., Wiese, C., Glicksman, N.R., Walczak, C.E., and Zheng, Y. (2001). Ran Stimulates Spindle Assembly by Changing Microtubule Dynamics and the Balance of Motor Activities. Nature Cell Biol. 3: 221-227.

15. Niederstrasser, H., Salehi-Had, H., Gan, E.C., Walczak, C.E., and Nogales, E. (2002). XKCM1 Acts on a Single Protofilament and Requires the C-terminus of Tubulin. J. Mol. Biol. 317:817-828.

16. Kline-Smith, S.L. and Walczak, C.E. (2002). The Microtubule-Destabilizing Kinesin XKCM1 Regulates Microtubule Dynamic Instability in Cells. Mol. Biol. Cell. 13:2718-2731.

17. Walczak, C.E., Gan, E.C., Desai, A., Mitchison, T.J., and S.L. Kline-Smith (2002). The Microtubule-Destabilizing Kinesin, XKCM1, is Required for Chromosome Positioning during Spindle Assembly. Curr. Biol. 12:1885-1889.

18. Ems-McClung, S.C., Zheng, Y., and Walczak, C.E. (2004). Importin  and Ran-GTP regulate XCTK2 Microtubule Binding. Mol. Biol. Cell. 15:46-57.

19. Rogers, G.C, Rogers, S.L., Schwimmer, T.A., Ems-McClung, S., Walczak, C.E., Vale, R.D., Scholey, J.M., and Sharp, D.J. (2004). Two Mitotic Kinesins Cooperate to Drive Poleward Flux and Anaphase Chromosome Motility. Nature. 427:364-370.

20. Kline-Smith, S.L., Khodjakov, A., Hergert, P., and Walczak, C.E. (2004). Depletion of Centromeric MCAK Leads to Chromosome Congression and Segregation Defects Due to Improper Kinetochore Attachments. Mol. Biol. Cell. 15: 1146-1159.

21. Lan, W., Zhang, X, Kline-Smith, S.L., Rososco, S., Barrett-Wilt, G., Shabanowit, J., Hunt, D.F., Walczak, C.E., Stukenberg, P.T. (2004). Aurora B Phosphorylates MCAK to Regulate Microtubule Depolymerization Activity in the Centromere. Curr. Biol. 14: 273-286.

22. Holmfeldt, P., Zhang, X., Stenmark, S., Walczak, C.E. and Gullberg, M. (2005). Ca2+/calmodulin-dependent protein kinase IIγ mediated inactivation of the Kin I kinesin MCAK is essential for bipolar spindle formation. EMBO J. 24: 1256-1266.

23. Hertzer, K.M, Ems-McClung, S.C., Kline-Smith, S.L., Lipkin, T., Gilbert, S.P. and Walczak, C.E. (2006) Full Length Dimeric MCAK is a More Efficient Microtubule Depolymerase than Minimal Domain Monomeric MCAK. Mol. Biol. Cell. 17:700-710.

24. Stout, J.R., Rizk, R.S., Kline, S.L., and Walczak, C.E. (2006). Deciphering Protein Function During Mitosis in PtK Cells Using RNAi. BMC Cell Biology. Jun 23;7(1):26

25. Ems-McClung, S.C., Hertzer, K.M., Zhang, X., Miller, M., and Walczak, C.E. (2007). The Interplay of the N- and C-terminal Domains of MCAK Control Microtubule Depolymerization Activity and Spindle Assembly. Mol. Biol. Cell. 18: 282-294.

26. Zhang, X., Lan, W., Ems-McClung, S.C. Stukenberg, P.T., and Walczak, C.E. (2007). Aurora B phosphorylates multiple sites on mitotic centromere-associated kinesin to spatially and temporally regulate its function. Mol Biol Cell. 18:3264-3276.

27. Zhang, X., Ems-McClung, S.C., and Walczak, C.E. (2008). Aurora A Phosphorylates MCAK to Control Ran-dependent Spindle Bipolarity. Mol. Biol. Cell. 19: 2752-2765.

28. Hedrick, D.G., Stout, J.R. and Walczak, C.E. (2008) Effects of anti-microtubule agents on microtubule organization in cells lacking the kinesin-13 MCAK. Cell Cycle. 7: 2146-2156

29. Hertzer, K.M, and Walczak, C.E. (2008) The C-termini of Tubulin and the Specific Geometry of Tubulin Substrates Influence the Depolymerization Activity of MCAK. Cell Cycle. 7:2727-2737.

30. Cai, S., Weaver, L., Ems-McClung, S.C., and Walczak, C.E. (2009). Kinesin-14 Family Proteins HSET/XCTK2 Control Spindle Morphology by Cross-Linking and Sliding Microtubules. Mol. Biol. Cell. 20: 1348-1359. PMID: 19116309.

31. Rizk, R., Bohannon, K., Wetzel, L., Powers, J.A., Shaw, S.L, and Walczak, C.E. (2009). MCAK and Paclitaxel Have Differential Effects on Spindle Organization and Microtubule Dynamics. Mol. Biol. Cell. 20:1639-1651. PMID: 19158381

32. Cai, S., O’Connell, Khodjakov, A. and Walczak, C.E. (2009). Chromosome Congression in the Absence of K-fibres. Nat. Cell Biol. 11: 832-838. PMID: 19525938

33. Tierno, M.B., Petrick, B., Graham, T.H., Wipf, P., Xu, F., SaundersW., Kitchens, C., Raccor, F.S., Balachandran, R., Day, B.W., Stout, J.R., Walczak, C.E.,, Ducruet, A.P., Hindman, C.E., and Lazo, J.S. (2009). The natural product disorazole C1 is a potent microtubule disrupting agent that induces premature senescence. J. Pharm. Exp. Ther. 328:715-722. PMCID: PMC2649750

34. Cai, S., Weaver, L.N., Ems-McClung, S.C., and Walczak, C.E. (2010). Proper Organization of Microtubule Minus-Ends is Needed for Midzone Stability and Cytokinesis. Curr. Biol. 20:880-5. PMID: 20434340.

35. Borysov, S.I., Granic, A., Walczak, C.E., Potter, H. (2011). Alzheimer Aβ Disrupts the Mitotic Spindle by Inhibiting Mitotic Motors Cell Cycle. May 1;10(9):1397-410.

36. Stout, J.R., Yount, A.L., Powers, J.A., LeBlanc, C., Ems-McClung, S.C., and Walczak, C.E. (2011). Kif18B Interacts with EB1 and Controls Astral Microtubule Length during Mitosis. Mol. Biol. Cell. 22:3070-3080. Epub 2011 Jul 7. PMID:21737685.

37. Weaver, L.N., Ems-McClung, S.C., Stout, J.R., LeBlanc, C., Shaw, S.L. Gardner, M.K., and Walczak, C.E. (2011). Ki18A Utilizes a Microtubule Binding Site in the Tail for Plus-end Localization and Spindle Length Regulation. Curr. Biol. 21:1500-1506. PMID: 21885282

38. Huang, R., Oh, H., Arrendale, A., Martin, V.A., Galan, J. Workman, E.J., Stout, J.R., Walczak, C.E., Tao, W.A., Borch, R.F., Geahlen, R.L. (2013). Intracellular Targets for a Phosphotyrosine Peptidomimetic Include the Mitotic Kinesin, MCAK. Biochem Pharmacol. 86:597-611. doi: 10.1016.

39. Ems-McClung, S.C., Hainline, S.G., Devare, J., Zong, H., Cai, S. Carnes, S., Shaw, S.L., and Walczak, C.E. (2013). Aurora B Regulates MCAK Activity Through a Phospho-conformational Switch that Reduces MCAK Association. Curr. Biol. 23:2491-2499. PMID: 24291095

40. Weaver, L.N., Ems-McClung, S.C., Chen, S.R., Yang, G., Shaw, S.L., and Walczak, C.E. (2015). The Ran-GTP Gradient Spatially Regulates XCTK2 Activity in the Spindle. Curr. Biol. 25: 1509-1514. PMC4452415

41. Pannu, V., Rida, P.C.G, Ogden, A., Pawar, S., Bowen, N.J., Cheng, A., Rudd, K., Gupta, M.V., Oprea-Ilies, O., Walczak, C.E., Cantuaria, C., and Aneja, R. (2015). Overexpression of Human Kinesin-14 family motor HSET Fuels Tumor Progression and Predicts Poor Clinical Outcomes in Breast Cancer Patients. Oncotarget. 6:6076-6091.

42. Zong, H., Carnes, S.K., Moe, C., Walczak, C.E., and Ems-McClung, S.C. (2016). The Far C-terminus of MCAK Regulates its Conformation and Pole focusing. Mol. Biol. Cell. 27: 1451-1464.

43. Chen, S., Stout, J.R., Dharmaiah, S., Yde, S., Calvi, B.R., and Walczak, C.E. (2016). Transient Endoreplication Down-Regulates the Kinesin-14 HSET and Contributes to High Levels of Genomic Instability. Mol. Biol. Cell. 27: 2911-2923.

44. Walczak, C.E., Zong, H., Jain, S., and Stout, J.R. (2016). Spatial Regulation of Astral Microtubule Dynamics by Kif18B. Mol. Biol. Cell. 27: 3021-3030.

45. Huang, Y., Li, T., Ems-McClung, S.C., Walczak, C.E., Prigent, C., Xueliang, Z., Zhang, X., and Zhang, Y. (2018). Aurora A Activation in Mitosis Promoted by BuGZ. J. Cell Biol. 17: 107-116.

**Book Chapters and Reviews**

1. Walczak, C.E. and Nelson, D.L. (1994). Regulation of Dynein-Driven Motility in Cilia and Flagella. Cell Motil. Cytoskeleton 27: 101-107. (Review).

2. Walczak, C.E. and Mitchison, T.J. (1996). Kinesin Related Proteins at Mitotic Spindle Poles: Function and Regulation. Cell 85: 943-946. (Review).

3. Field, C.M., Oegema, K. Zheng, Y., Mitchison, T.J., and Walczak, C.E. (1998). Purification of Cytoskeleton Proteins using Peptide Antibodies. Methods Enz. 298: 525-541.

4. Walczak, C.E. (1999). The Internal Motor Kinesins. In Guidebook to the Cytoskeletal and Motor Proteins, T. Kreis and R. Vale, editors. Oxford University Press, New York, NY. (Invited book chapter).

5. Desai, A., Murray, A., Mitchison, T.J., and Walczak, C.E. (1999). The Use of Xenopus Egg Extracts to Study Mitotic Spindle Assembly and Function in Vitro. Methods in Cell Biol. 61: 385-412.

6. Shirasu, M., Yonetani, A., and Walczak, C.E. (1999). Microtubule Dynamics in Xenopus Egg Extracts Microsc. Res. Tech. 44: 435-445. (Review).

7. Heald, R. and Walczak, C.E. (1999). Microtubule-based motor function in mitosis. Curr. Opin. Struc. Biol. 9: 268-274. (Review).

8. Walczak, C.E. (2000). Microtubule Dynamics and Tubulin Interacting Proteins. Curr. Opin. Cell Biol. 12: 52-56. (Review).

9. Kline-Smith, S.L. and Walczak, C.E. (2000) Microtubules in Orbit. J. Cell Biol. 149: 5-6. (Comment).

10. Walczak, C.E. (2000). Molecular Mechanisms of Spindle Function. Genome Biology. 1(1): reviews101 (Invited Review).

11. Desai, A. and Walczak, C.E. (2001). Assays for Microtubule Destabilizing Kinesins. Methods in Mol. Biol. 164: 109-121.

12. Walczak, C.E. (2001). Ran Hits the Ground Running. Nature Cell Biol. 3: E69-E71. (News and Views).

13. Walczak, C.E. (2003). The Kin I Kinesins Are Microtubule End-Stimulated ATPases. Mol. Cell. 11: 286-288. (Preview)

14. Biggins, S. and Walczak, C.E. (2003). Captivating Capture: How Microtubules Attach to Kinetochores. Curr. Biol. 13:R449-R460. (Invited Review).

15. Hertzer, K.M., Ems-McClung, S., and Walczak, C.E. (2003). Kin I Kinesins: Insights into the Mechanism of Depolymerization. Crit. Rev. Biochem. Mol. Biol. 38: 453-469.

16. Ems-McClung, S.C. and Walczak, C.E. (2004). Structural Insights into the Microtubule Depolymerizing Kinesins. Cell. 11:485-486. (Preview).

17. Kline-Smith, S.L. and Walczak, C.E. (2004). Mitotic Spindle Assembly and Chromosome Segregation: Re-focusing on MT Dynamics. Mol. Cell. 15:317-327.

18.Lawrence, C., 19 authors, Walczak, C.E., Wordeman, L (2004). A Standardized Kinesin Nomenclature. J. Cell Biol. 176: 19-22.

19. Walczak, C.E. (2005). CLASP Fluxes its Mitotic Muscles. Nat. Cell Biol. 7: 5-7. (News and Views).

20. Rizk, R.S. and Walczak, C.E. (2005). Chromosome Dynamics: Actin’s Gone Fishing. Curr. Biol. 15: R841-R842. (Dispatch).

21. Walczak, C.E. (2006). Parting company with the chromosome segregation and aneuploidy series. TICB. 16:65-66.

22. Zhang, X. and Walczak, C.E. (2006). Chromosome Segregation: Correcting Improperly Attached Microtubules. Curr. Biol. 16:R677-679. (Dispatch).

23. Walczak, C.E. (2006). Kinesin-8s: Motoring and Depolymerizing. Nat. Cell Biol. 8:903-905. (News and Views).

24. Walczak, C.E. (2007). Question and Answer. Curr. Biol. R440-R441.

25. Shaw, S.L. and Walczak, C.E.) (2007). Spindles: one speckle at a time. Nat Cell Biol. 2007 9:1223-1224.

26. Walczak, C.E. and Heald, R.E. (2008). Mechanisms of Spindle Assembly and Chromosome Segregation. Int. Rev. Cytology. 265: 111-158.

27. Heald, R. and Walczak, C.E. (2008). Structural and Functional Analysis of the Mitotic Spindle in Roles of Kinetochores and (Neo)centromeres in Cell Division and Tumorigenesis, Peter DeWulf and William Earnshaw, editors. Pg. 231-268. Springer, US.

28. Cai, S. and Walczak, C.E. (2008). Kinetochore Attachment: How the Hec can a cell do it? Curr. Biol. 18:R1093-1096. PMID: 19081042.

29. Stout, J.R., Rizk, R. and Walczak, C.E. (2009). Protein Inhibition by Microinjection and RNA-mediated Interference in Tissue Culture Cells: Complimentary Approaches to Study Protein Function. Methods in Mol. Biol. 518:77-97. PMID: 19085130.

30. Cai, S. and Walczak, C.E. (2009). Chromosome Congression: The Road Less Taken. Cell Cycle. 8: 3791-3793.

31. Walczak, C.E., Cai, S., and Khodjakov, A. (2010). Chromosome Motility During Mitosis. Nature Reviews Mol. Cell Biology. 11: 91-102 PMID: 20068571

32. Ems-McClung, S.C. and Walczak, C. E. (2010). Kinesin 13s in Mitosis: Key Players in the Spatial and Temporal Organization of Spindle Microtubules. Sem. In Cell. Dev. Biology. 21:276-82. PMID: 20109574.

34. Walczak, C.E., Shaw S.L. (2010). A MAP for Bundling Microtubules. Cell. 142:364-7. PMID: 20691897.

35. Walczak, C.E., Rizk, R.S, and Shaw, S.L. (2010). The Use of Fluorescence Redistribution after Photobleaching for Analysis of Cellular Microtubule Dynamics. Methods Cell Biol. 97:35-52. PMID: 20719264

36. [Akhtar A](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Akhtar%20A%22%5BAuthor%5D), [Fuchs E](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Fuchs%20E%22%5BAuthor%5D), [Mitchison T](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Mitchison%20T%22%5BAuthor%5D), [Shaw RJ](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Shaw%20RJ%22%5BAuthor%5D), [St Johnston D](http://www.ncbi.nlm.nih.gov/pubmed?term=%22St%20Johnston%20D%22%5BAuthor%5D), [Strasser A](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Strasser%20A%22%5BAuthor%5D), [Taylor S](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Taylor%20S%22%5BAuthor%5D), [Walczak C](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Walczak%20C%22%5BAuthor%5D), [Zerial M](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Zerial%20M%22%5BAuthor%5D). (2011) A Decade of Molecular Cell Biology: Achievements and Challenges. Nat. Rev. Mol. Cell Biol. 12:669-674. PMID: 21941276

37. Weaver, L.N., and Walczak, C.E. (2011) Hanging On by a Tail. Bioarchitecture.1: 236-239.

38. Earnshaw, W.C….. Walczak, C. E…….. (2013). Esperanto for histones: CENP-A, not CenH3, is the centromeric histone H3 variant. Chromosome Res. 21:101-106. PMID 23497211

39. Walczak, C.E., Gayek, S., and Ohi, R. (2013) Microtubule Depolymerizing Kinesins. Annu. Rev. Cell Dev. Biol. 219:417-441. PMID: 23875646

40. Verhey, K.J., Cochran, J.C., and Walczak, C.E. (2015). The Kinesin Superfamily in “Kinesins and Cancer”, Frank Kozielski, editor. Humana Press. 1-25.

41. Yount, A.L, Zong, H., and Walczak, C.E. (2015). Regulatory Mechanisms that Control Mitotic Kinesins. Exp. Cell Res. 15:70-77. PMID: 25576382

42. Weaver, L.N. and Walczak, C.E. (2015). Spatial Gradients Controlling Spindle Assembly. Biochem. Soc. Trans. 43: 7-12.

**Professional Organizations:**

American Society for Cell Biology

Sigma Xi, The Scientific Research Society

American Association for the Advancement of Science

**Professional ACTIVITIES:**

**Editorial board membership**

Faculty of 1000 (2003-present)

Current Biology, editorial board (2004-present)

Molecular Biology of the Cell, board of reviewing editors (2005-present)

BioArchitecture, editorial board (2010-present)

Cell Research, editorial board (2010-present)

F1000 Research, editorial board (2012-present)

Cell Discovery, editorial board (2015-present)

Oncotarget, editorial board (2015-present)

**Reviewer for scientific journals (ad hoc)**

*Nature, Science, Cell, Molecular Cell, Developmental Cell, Cell Reports, Nature Cell Biology, Nature Structural and Molecular Biology, Nature Reviews Molecular and Cell Biology, Nature Protocols, EMBO Journal, EMBO Reports, Journal of Cell Biology, Current Biology, Molecular Biology of the Cell, Biochemistry, Bioessays, British Journal of Cancer, Journal of Cell Science, Journal of Cellular Physiology, Journal of Cellular Biochemistry, Journal of Biological Chemistry, Nature Genetics, Neuron, Cell Cycle, Cell Motility and the Cytoskeleton, PLOS Genetics, PLOS Biology, PNAS, Trends in Cell Biology, Endocrinology, Eukaryotic Cell, BMC Cell Biology, BMC Genetics, PLOS, PLOS One, Biotechniques, Biology, Chemistry and Biology, Cell Research, Peer J*

**Reviewer for granting agency**

*NIH CSF/NCSD Study Panel: Member from 7/1/07 to 6/30/11*

*Human Frontier Science Program Panel: 1/2008 to 1/2012*

*NIH CSF Study Panel: February 2006 (ad hoc)*

*NIH MGA Special Emphasis Panel: July 2006*

*NIH NDT Study Panel: February 2007 (ad hoc)*

*NIH NCSD Administrative Supplement Panel: July 2009*

*NIH S10 Instrument Review Panel: November 2009*

*NIH S10 Instrument Review Panel: February 2012 (Panel Co-chair)*

*ACS Cell Growth and Division Review Panel: January 2007 (ad hoc)*

*National Science Foundation (ad hoc)*

*Human Frontier Science Program (ad hoc)*

*Wellcome Trust (ad hoc)*

*Cancer Research UK (ad Hoc)*

*ETH Zurich Research Commission (ad hoc)*

*Ministry of Education, Academic Research Fund, Singapore (ad hoc)*

*US Civilian Research and Development Foundation (ad hoc)*

*INSERM- ATiP Avenir Program (ad hoc)*

*National Science Center, Poland (ad hoc)*

*Hong Kong Research Council (ad hoc)*

*AHA CSS2 Study Section: April 2013*

*NIH NCSD Study Panel: October 2013 (ad hoc)*

*NIH TME Study Panel: February 2014 (ad hoc)*

*NCI Laboratory of Cellular and Molecular Biology, Site Visit team, June 2014*

*NIGMS, Council Meeting: May 2015 (ad hoc)*

*NIH, 4D Nucleome Imaging Tools Review Panel: July 2015*

*NIGMS, MIRA Review Panel: November 2015*

*NIH S10 Instrument Review Panel: November 2016*

*NIGMS MIRA Review Panel: March 2017 (Panel Co-chair)*

*NIGMS, Special Emphasis Panel: July 2017 (Panel Chair)*

*NIGMS Council: January 2018 (ad hoc)*

*NCI BMCT Panel, June 2018 (ad hoc)*

**Scientific Meetings, Organization**

*Co-Chair of Session:*

*Cytoskeleton Assembly and Dynamics Minisymposium, ASCB, December 1999*

*Mitosis and Meiosis Minisymposium, ASCB, December 2001*

*Microtubule Motors Minisymposium, ASCB December 2006*

*Chair of Session:*

*Gordon Research Conference on Motile and Contractile Systems, Mitosis Session, July 2005*

*Cold Spring Harbor Conference on The Cell Cycle, Mitosis Session, May 2006*

*FASEB Summer Research Conference on Mitosis, June 2007*

*FASEB Summer Research Conference on Mitosis, September 2009*

*The Dynamic Cell, September 2014*

*FASEB Summer Research Conference on Mitosis, June 2015*

*Organizing Committee:*

*Program Committee for ASCB Annual Meeting for 2003*

*Co-chair for FASEB Summer Research Conference on Mitosis, August 2009*

*Chair for FASEB Summer Research Conference on Mitosis, August 2012*

Other Service to Discipline

*American Society for Cell Biology, Program Committee, 2003*

*American Society for Cell Biology Public Information Committee, 2011-2016*

*American Society for Cell Biology Council, 2014-2016*

*American Society for Cell Biology Nominating Committee, 2015*

*American Society for Cell Biology Strategic Planning Subgroup, 2017*

*American Society for Cell Biology Professional Development Task Force, 2018*

Educational Reviews/Publication:

*Ergito: Cells Online Book*

*Lodish: Molecular Biology of the Cell*

*Campbell: Biology*

*Karp: Cell Biology*

*Karp: Walczak: Author of web-based supplement for Cell Biology and Medicine to accompany Karp Cell Biology (2010)*

*Worldbook Encyclopedia Sections on Microscopy*

**Invited Seminars**

1996 University of California-San Diego, Department of Biology

1997 Duke University, Department of Pharmacology and Cancer Biology

University of Michigan, Department of Biology

Purdue University, Department of Biochemistry

Princeton University, Department of Molecular Biology

Fred Hutchison Cancer Research Center

University of Colorado-Denver Health Sciences, Department of Biochemistry

University of Virginia, Department of Biology

1998 University of California-Davis, Department of Molecular and Cellular Biology

University of California-Berkeley, Department of Molecular and Cell Biology

Baylor College of Medicine, Department of Biochemistry

University of Utah, Huntsman Cancer Institute

Memorial Sloan Kettering Research Institute, Cellular Biochemistry and Biophysics

University of Pennsylvania, Department of Cell and Developmental Biology

Fox Chase Cancer Center, Department of Cell and Developmental Biology

Vanderbilt University, Department of Pharmacology

Johns Hopkins University, Department of Biology

University of Texas-Houston, Department of Biochemistry and Molecular Biology

Northwestern University, Department of Biochemistry, Mol. Biol. and Cell Biol.

Indiana University-Bloomington, Medical Sciences Program

National Cancer Institute, Division of Basic Sciences

University of Colorado-Boulder, Molecular, Cell and Developmental Biology

Stanford University, Department of Pathology

1999 Indiana University School of Medicine, Department of Biochemistry and Molecular Biology

2000 Indiana University School of Medicine, Cancer Center

University of Cincinnati, Department of Biochemistry

2001 Carnegie Institute of Washington, Department of Embryology

University of Notre Dame, Department of Chemistry and Biochemistry

Penn State University, Department of Biochemistry and Molecular Biology

1. Evansville Center for Medical Education, Medical Sciences

Columbia University, Department of Anatomy and Cell Biology

COE Molecular Motors Conference, Hakone Japan

2004 University of Wisconsin Madison, Department of Biochemistry- Everson Lecture

Ohio State University, Interdisciplinary Graduate Program Distinguished Lecture Series

University of Pittsburgh, Department of Biological Sciences

Chromosome Segregation and Anueploidy Conference, Cortona Italy

2005 University of Texas-Southwestern Medical School, Department of Cell Biology

Rensselaer Polytechnic Institute, Department of Biology

The Wadsworth Center at NY State Department of Health, Department of Molecular Medicine

University of Virginia, Department of Biochemistry and Molecular Genetics

Gordon Research Conference on Motile and Contractile Systems

1. University of Oklahoma Medical School, Department of Cell Biology
2. Northwestern University School of Medicine, Department of Cell Biology

Indiana University School of Medicine, Department of Biochemistry and Molecular Biology

Albert Einstein College of Medicine, Department of Physiology

FASEB Summer Research Conference on Mitosis

Fujihara Seminar on Molecular Motors

2008 Cornell University, Molecular Cell and Developmental Biology.

Emory University, Dept. of Cell Biology

American Society for Cell Biology, Platform Session on Cytoskeletal Dynamics

2009 Tsinghua University, Department of Biology

Indiana State University, Department of Biology

Indiana Microscopy Society Annual Meeting

2010 University of Southern Florida, Dept. Of Molecular Medicine

Columbia University, Dept. of Cell Biology

2011 Indiana University Microscopy Workshop Series

University of Georgia, Dept. of Cell Biology

2012 Virginia Tech, Department of Biology

2013 IRB-Barcelona Conference on Microtubules in Cytoskeleton and Disease

University of Cambridge, Cambridge Cell Cycle Club

Georgia State University, Distinguished Lecture Series

Rensselaer Polytechnic Institute, Dept. of Biology

2014 NIH, NINDS Cell Biology Program

University of Cambridge, The Dynamic Cell Conference

2015 IU School of Medicine, South Bend

FASEB Summer Research Conference on Mitosis

2017 Indiana University School of Medicine, Department of Biochemistry and Molecular Biology

Indiana University, Department of Molecular and Cellular Biochemistry

University of Toledo, Keynote Speaker at Research Day

2018 Virginia Tech, Department of Biology

Drexel University Department of Neurobiology and Anatomy

17th International Xenopus Conference

International Max Planck Research School in Chemical and Molecular Biology

**TEACHING:**

C580 Medical Biochemistry, (1999-2015, Fall Semester, 22-45 lecture hours)

This is the 1st year Medical School course that covers protein structure, enzyme kinetics, DNA replication and repair, transcription, translation, protein sorting, cell cycle, cytoskeleton, and cell signaling. I taught the entire class from 1999-2007, and then I was Course Director and taught with one other faculty member from 2007-2015

L587 Developmental Biology, (2000, Spring semester, 4.5 lecture hours)

This is a 1st year graduate student course that covers fundamental aspects of cell and development biology.

Z620 Cell Biology of the Cytoskeleton (2001, Spring semester, 24 combined lecture/discussion hours, team taught with Bill Saxton)

This is an advanced topics course for graduate students that focused on the primary literature on microtubule structure and function and motor proteins.

L586 Cell Biology, (2002, Spring semester, 4.5 lecture hours)

This is a 1st year graduate student course that covers fundamental aspects of cell and development biology.

Z620 Grant Writing (2005, Fall semester, 12 lecture/discussion hours plus 15 hours one on one meetings with students, team taught with Thom Kaufman)

This is an advanced topics course for graduate students that focuses on how to write an effective grant proposal. They must write a proposal, critique proposals and attend study section to review the grants in the class.

C689 Quantitative and Chemical Biology Journal Club (2013, Spring semester, 4 lecture/discussion hours plus 3 hours one on one meetings with students)

This is a team taught journal club for graduate students

MCT Molecules to Cells to Tissues, 1st year Medical School course (2016-2018, Fall semester, 16-18 lecture/discussion hours)

This is a team taught, multi-disciplinary first year medical school course that combines cell and molecular biology, medical genetics, biochemistry and some histology.

M509 Basics of Scientific Communication, 1st year graduate student course (2017, 2018, Spring semester, 16 combined lecture/discussion hours)

This is a course that I developed for first year graduate students to teach them the fundamentals about scientific communication. We cover scientific and lay abstracts, preparation of figures for posters, talks, and papers, instructions to authors, and communicating with the lay public.

M800 Graduate Research (all semesters)

This is the official course designation for graduate student research.

M450: Undergraduate Research (all semesters)

This is the official course designation for graduate student research.

**TRAINEES:**

**Graduate Students**

* 1. Susan Kline-Smith, Ph.D. in Anatomy and Cell Biology, Indiana University

MCAK Regulation of Microtubule Dynamics and Organization of the Interphase Array and Mitotic Spindle and Kinetochore Attachments in Cells

American Heart Association Predoctoral Fellowship, 2001-2004, $70,500

Robert Bullard Award for Outstanding Graduate Student, 2002

(CEO Susan Chang Consulting, LLC)

2001-2008 Kathleen Hertzer, M.D./Ph.D. in Anatomy and Cell Biology, Indiana University

Mechanistic Analysis of the Microtubule Depolymerizing Kinesin MCAK

NIH Trainee in Molecular Biology and Genetics, 2003-2006

Paul Harmon Award for Outstanding Graduate Student Seminar, 2004

Bullard Award for Outstanding Graduate Student, 2008

American Heart Association Predoctoral Fellowship, 2006-2008, $53,000

(Currently in residency at UCLA Medical School)

2001-2007 Ke Wang, MS. in Molecular Cell and Developmental Biology, Indiana University

Functional Analysis of the Kinesin-Related Protein Kif6

(Currently scientist at Genzyme)

2002-2007 Xin Zhang, Ph.D. in Molecular Cell and Developmental Biology, Indiana University Phosphoregulation of the Microtubule Depolymerization MCAK

American Heart Association Predoctoral Fellowship, 2003-2005, $49,000

(Current Asst. Professor Chinese Academy of Sciences)

2002-2007 David Hedrick, M.D./M.S. in Anatomy and Cell Biology, Indiana University

Effects of Anti-Microtubule Drugs on Cells Lacking MCAK

(Physician, Indianapolis)

2003-2009 Rania Rizk, Ph.D. in Molecular Cell and Developmental Biology, Indiana University, Differential Regulation of Microtubule Dynamics and Distribution by MCAK during Mitosis

American Heart Association Predoctoral Fellowhip, 2005-2007, $53,000

(Instructor, RC Med Review, LLC)

2005-2009 Shang Cai, Ph.D. in Biochemistry, Indiana University

Function and Regulation of Kinesin-14 in Spindle Morphology and Chromosome Segregation

Marine Biology Labs Physiology Course, 2007, $3000 fellowship

(Currently a post-doc at Stanford University)

2007-2009 PK Moua, Ph.D. in Molecular Cell and Developmental Biology, Indiana University, Differential functions of the Kinesin-1 tail in *Drosophila* transport processes (Co-Chair of Committee with William Saxton)

(Currently a lecturer at Beloit College)

2008-pres Amber Yount, Ph.D. in Biochemistry, Indiana University

Regulation of Microtubule Dynamics by Kif18B and MCAK

(Currently an Asst. Professor at Franklin College)

2009-2014 Lesley Weaver, Ph.D. in Molecular Cell and Developmental Biology, Indiana University, Regulation of Mitotic Spindle Length and Organization

Marine Biology Labs Physiology Course, 2010, $4000 fellowship

NIH Predoctoral Fellowship, 2011-2014, $80,286

(Currently a post-doc at Johns Hopkins School of Public Health)

2010-2013 Sathiya Dharmaiah, M.S. in Molecular and Cellular Biochemistry, Indiana University. Regulation of Chromosome Motility

(currently a research associate at Leidos Biomedical Research)

2011-2017 Hailing Zong, Ph.D. in Molecular Cell and Developmental Biology, Indiana University. Mechanistic Regulation of the Microtubule Depolymerizing Kinesins

Marine Biology Labs Physiology Course 2014, $6000 fellowship

(seeking employment in Biotech)

2012-2014 Tirzah Brown, M.S. in Anatomy and Cell Biology Education, Indiana University, Development of Biochemistry TBLs

(Faculty Fellow, Ivy Tech Community College)

2012-2015 Stefan Husted, M.S. in Pharmacology, Indiana University, Assay Development for Inhibitors of Microtubule Destabilizing Kinesins

(currently a genetic toxicologist at Covance)

2012-2017 Shengyao Chen, Ph.D. in Molecular Cell and Developmental Biology, Indiana University, Mechanisms Controlling Endocycle/Apoptosis in Breast Tissue Cells

(currently a Bioinformatics Scientist III at IDT)

2017-2018 Mark Hazelbaker, M.S. in Biotechnology, Indiana University

2017-2018 Jeanna Wigley, M.S. in Biotechnology, Indiana University

2018-present Kendra Lambert, M.S. in Biotechnology, Indiana University

2018-present Jared Ross, M.S. in Biotechnology, Indiana University

**Postdoctoral Fellows**

2001-2005 Stephanie Ems-McClung, Ph.D. Medical Genetics

Walther Cancer Institute Post-doctoral Fellowship, 2001-2004,

(currently a Research Assistant Professor in Medical Sciences, Indiana University,

Walczak Lab)

2007-2008 Xin Zhang, Ph.D. Molecular, Cellular and Developmental Biology (currently Assoc. Professor Chinese Academy of Sciences)

2008-2012 Chris Sontag, Ph.D. Biochemistry (currently a research associate at IU)

2009 Shang Cai, Ph.D. Biochemistry (currently a post-doc at Stanford University)

2016-present Sanjay Shrestha, Ph.D. Molecular Biology

**Undergraduates**

1999-2000 Suzannah Park , B.S. Biology (MD, IU School of Medicine)

1999-2001 Thomas Lipkin, B.S. Biology (PhD, Columbia University)

2001-2002 Jennifer Luckki, B.S. Biology

2004-2005 Emmanuel Obeng, B.S. Biology

2005-2006 Kevin Bohannon, B.S. Biology (PhD, Northwestern University)

2005-2009 Jenna Devare, B.S. Biochemistry (2009). IFLE Program and IU Stars Student (MS Cornell Medical School)

2006 Ellen Weinzapful, B.S. Biology (2010). IFLE Program. Beckman Scholar, Goldwater Fellowship (PhD, University of Pennsylvania)

2006-2008 Lesley Weaver, B.S. Biology, NIH-IMSD Program Fellowship (PhD, Indiana University)

2006-2008 Sarah Hainline, B.S. Biology (PhD Vanderbilt University)

2007-2011 Laura Wetzel, B.S. Biochemistry (2011). IFLE Program, IU Stars (currently a PhD student at UC-Berkeley)

2007-2008 David Hsieh, B.S. Biology (2010). Cox Scholar

2008-2009 Robby Pease, B.S. Biology (2010).

2009-2011 Caitlin Dunn, B.S. Biology (2011). IU Stars (currently an MD/PhD student at University of Cincinnati

2009-2013 Stephanie Lamb, B.S. Biology (2013). IFLE Program. (currently a PhD student at Vanderbilt University

2009-2012 Arpita Appannagari, B.S. Biology (2013). Cox Scholar. (currently a MS student at Columbia University School of Public Health)

2010-2012 Eric Workman, B.S. Biochemistry (transferred to Yale University). IFLE Program. IU Stars.

2011-2012 Stefan Husted, B.S. Biochemistry/Neuroscience (12/2011). (MS at Indiana University)

2011-2015 Sachin Jain, B.S. Biology. IFLE Program, Cox Scholar. (currently a medical student at IUSOM)

2013-2017 Christina Moe, B.S. Biology. Cox Scholar. (currently a medical student at Ohio State)

2014-2016 Sarina Rodriguez, B.S. Biology (expected 2016). IU STEM Summer Scholar. (currently a research scientist at Eli Lilly)

2014-2017 Sarah Yde, B.S. Biology. (PhD student at University of Chicago)

2015-2016 Lauren Frank, B.S. Biology (expected 2018).

2016-present Jason Zhang, B.S. Biology (expected 2020), Cox Scholar.

2017-present McKenzie Emch, B.S. Biochemistry (expected 2021), Cox Scholar

2017-present Stephanie Zhang, B.S. Biochemistry (expected 2020). IFLE Program

**Research Associates**

1999-2001 Eugene C. Gan, M.S. Biochemistry (PhD Duke University)

2000-2013 Jane Stout, B.S. Biology

2002-2003 Sarah Johnstone, B.S. Biology (PhD MIT)

2003-2007 Chantal LeBlanc, M.S. Biochemistry

2005-present Stephanie Ems-McClung, Ph. D. Res. Asst. Professor- Medical Sciences

2016 Jay Pilrose, M.S. Biochemistry

2018-present Mark Hazelbaker, M.S. Biotechology

**University Service:**

**University Service**

Executive Director, IUB Light Microscopy Imaging Center (2008-2017): Oversee the university imaging center that supported >150 users from ~75 research groups at IU. Set policies with the administration, coordinated with faculty co-director and staff, wrote grants for extramural and intramural support, and recommended purchases of large-scale equipment.

Assoc. VP for Research Search Committee (2011): Search committee to recruit the new Associate Vice President for Research who serves the entire IU system.

Office of Vice Provost for Research Oversight Committee (2017-present): Serve as program liaison to the upper administration.

**University Committee Service**

***Departmental Service- Medical Sciences Program, IU-Bloomington***

Graduate Education Committee (1998-present): review all graduate admission applications, set policies for graduate programs in department, review current standing of students in program

Faculty Mentoring (2006-present): serve as faculty mentor for junior faculty in Medical Sciences

Chris Quirk (2004-2007)

Manjari Mazumdar (2007-2010)

Peter Hollenhorst (2012-2016)

Heather Hundley (2012-present)

Anirban Mitra (2013-present)

Sumegha Mitra (2015-2017)

Richard Carpenter (2017-present)

Chair, Cancer Biology Search Committee (2006-2007): faculty search committee to hire multiple investigators in the area of Cancer Biology to enhance this research focus and enhance interactions on the Bloomington campus.

Cancer Biology Search Committee (2008-2009): faculty search committee to hire multiple investigators in the area of Cancer Biology to enhance this research focus and enhance interactions on the Bloomington campus.

Cancer Bioinformatics/Epigentics Search Committee (2011): faculty search committee to hire multiple investigators in the area of cancer bioinformatics and bioinformatics of human disease

Cancer Biology Search Committee (2012): faculty search committee to hire multiple investigators in the area of Cancer Biology.

Medical Sciences Executive Committee (2015-present): faculty review for Asst. and Assoc. Professors- tenure track.

Co-director, Cell, Molecular and Cancer Biology Graduate Program (2016): organize graduate program, mentor students, organize curriculum, oversee progress toward degree.

Chair, Cancer Biology Search Committee (2016-2017): faculty search committee to hire one or more investigators in the area of Cancer Biology.

Asst. Director for Research (2017-present): oversee research mission of program, coordinate faculty mentoring, assist in hiring and negotiation, serve as departmental liaison to administration.

Student Mentoring Committee (2017-present): meet yearly with all graduate students in CMCB program, work through their IDPs, and help them set training and career goals.

***School Service- IU School of Medicine***

Search Committee for Medical Sciences Program Director (2004-2005): faculty search committee to identify the new Dean and Director of Medical Sciences Program in Bloomington

IUSCC Core Pilot Proposal Review (2015): Review of research proposals to use core facilities in the IU Simon Cancer Center.

Vera Bradley Foundation Review Committee (2017): Internal grant competition review.

IUSCC Core Pilot Proposal Review (2017): Review of research proposals to use core facilities in the IU Simon Cancer Center.

IUSCC Asst. Professor Pilot Proposal Review (2018): Review of research proposals from young faculty for project seed funding.

***Campus Service- Indiana University- Bloomington***

Molecular Biology Institute Fellowship Committee (1999): review fellowship applications

Beckman Scholars Review Committee (2000): review fellowship applications for outstanding undergraduates

Myers Hall Space Committee (2000-2006): review and assign research space allocation to investigators

Molecular Biology Institute Facilities Committee (2000-2007): review facilities that serve the IMBI- my major contribution is on the microscopy facility subcommittee

Interdisciplinary Science Building Facilities Committee (2000-2001): to assess needs of researchers in life and physical sciences to aid in the design plans of the new MSB set to open in 2007

Life Sciences Oversight Committee (2001-2002): review all life sciences programs and facilities on campus

IUB Research Infrastructure Assessment Committee (2004-2005): assimilate research space needs for all units on the IUB campus and help implement a design plan for the campus to take it into the next century

Life Sciences Task Force (2006-2007): goal is to assist Provost McRobbie on matters relating to life science development on the Bloomington campus and to help implement the Life Sciences Strategic Plan

IUB Life Sciences 3 Taskforce (2006-2007): goal is to begin planning the next major research building on the Bloomington campus with regards to disciplines present in the building as well as the location of the building on the campus.

Meiosis Search Committee (2007): Biology Department faculty search committee to recruit senior level faculty in meiosis, recombination and cell cycle

Faculty Mentoring Committees

Sid Shaw (Biology): 2006-2012

Joe Pomerening (Biology): 2007-2012

Soni Lacefield (Biology): 2013-2016

Julia Van Kessel (Biochemistry/Microbiology): 2015-2017

Ling-Ling Chen (Biochemistry): 2016-present

Cancer Biology Search Committee (2007): COAS/Medical Sciences faculty search committee to recruit senior level faculty in cancer biology.

Gill Chair Search Committee and Advisory Board (2008-present): COAS faculty search committee to recruit senior Gill Chair faculty and to oversee the Gill Chairs.

Searle Scholars Selection Committee (2009): University level review of junior faculty award nominations

CGB Review Committee (2009): OVPR review of the CGB.

MBG Graduate student standards committee (2009-2010): Reevaluate the standards for the PhD degree and establish a set of metrics for the students.

Mallinckrodt Foundation Selection Committee (2012-2013): University level review of junior faculty award nominations

Searle Scholars Selection Committee (2013): University level review of junior faculty award nominations

Molecular Cellular Developmental Biology Search Committee (2013): faculty search committee to hire multiple investigators in cell biology and genomics.

QCB Training Program Advisory Board (2014-present): Oversee the multi-disciplinary QCB training program and the training grant that was awarded.

FRSP Review (2015): Internal grant review of funding proposals.

FRSP Review (2016): Internal grant review of funding proposals.

Cox Research Scholars Advisory Board (2017-present): Faculty commit to assist in development and guidance of policies of the Cox Research Scholars Program

Laboratory Animal Research Faculty Oversight Committee (2017-present): Faculty oversight committee to set policies and funding for laboratory animal research.

***Student Service, Thesis Committee Member***

* 1. Diego Alvarado Ph.D. MCDB, Joe Duffy, advisor

1999-2006 Alex Many Ph.D. MCDB, Mimi Zolan, advisor

1999-2005 Nicole Meyer M.S. MCDB, Susan Strome, advisor

1999-2005 Dana Niedowicz Ph.D MCDB, David Daleke, advisor

1999-2000 Lei Xu Ph.D. MCDB, Susan Strome, advisor

2000-2003 Yong Mee Cho Ph.D. Anatomy and Cell Biology, John Foley, advisor

2000-2005 Jean Amick Ph.D. MCDB, Yves Brun, advisor

2000-2005 Darron Luesse Ph.D. MCDB, Roger Hangarter, advisor

2000-2005 Aaron Pilling Ph.D. MCDB, Bill Saxton, advisor

2001-2006 John Kim Ph.D. MCDB, Wayne Forrester, advisor

2002-2007 Rosie Barkus Ph.D. MCDB, Bill Saxton, advisor

2002-2006 Adrienne Evans Ph.D. MCDB, Beth Raff, advisor

2002-2007 Dai Horiuchi Ph.D. MCDB, Bill Saxton, advisor

2003-2010 Ke Xu Ph.D. MCDB, Beth Raff, advisor

2003-2006 Dave Coates MS. Microbiology, Joel Ybe, advisor

2004-2009 Amy Kerzman Ph.D. Biochemistry, Andrew Feig, advisor

2004-2010 Andy Burhman Ph.D. MCDB, Richard Hardy, advisor

2005-2009 PK Mauo Ph.D. MCDB, Bill Saxton, advisor, Co-advisor

2005-2009 Qian Niu Ph.D. Biochemistry, Joel Ybe, advisor

2005-2008 C. Million-Passe Ph.D. Physiology, Chris Quirk, advisor

2005-2009 Kate Brannon MS. MCDB, Chris Quirk, advisor

2006 Lisa Sproul Ph.D. University of Pittsburgh, Susan P. Gilbert Advisor

2007-2009 Melissa Illingsworth M.S. Biochemistry, Joel Ybe, advisor

2007 Vladimir Varga Ph.D. Max Planck Institute Dresden, Joe Howard, Advisor

2008-2013 Laura Vineyard Ph.D. MCDB, Sid Shaw, advisor

2008-2012 Qing Kang Ph.D. MCDB, Joe Pomerening, advisor

2008-2014 Sam Ipe Ph.D. MCDB, Joe Pomerening, advisor

2008-2012 Madhura Kadaba Ph.D MCDB, Brian Calvi, advisor

2009-2014 Xiaohui Gao Ph.D. Biochemistry, Charles Dann, advisor

2009-2014 Bingqing Zhang Ph.D. MCDB, Brian Calvi, advisor

2010-2012 Christian Hassel M.S. Biology, Brian Calvi, advisor

2010-2015 Kung-Hsien Ho Ph.D. MCDB, Soni Lacefield, advisor

2010-2017 Meredith Krodel Ph.D. Biochemistry, Anne Prieto Advisor

2011-2016 Suozhi Qi Ph.D. MCDB, Brian Calvi, advisor

2011-2013 Julie Brothwell Ph.D. Biochemistry, David Nelson, advisor (transferred)

2011-2017 Jing Wang Ph.D. MCDB, Craig Pikaard, advisor

2012-2017 Chunyang Zhang Ph.D. MCDB, Brian Calvi, advisor

2012-2015 Beth Arcus M.S. Biochemistry, Jared Cochran, advisor

2013-2017 Drew Elliot Ph.D. Biochemistry, Sid Shaw, advisor

2014-present Gabriel Gihana Ph.D. MCDB, Soni Lacefield, advisor

2014-present Chris Puccia Ph.D. MCDB, Soni Lacefield, advisor

2014-present Ben Walker Ph.D. Biochemistry, Jared Cochran, advisor

2014-present Michael Rotelli Ph.D. MCDB, Brian Calvi, advisor

2016-present Carrie Lierz Ph.D. Biochemistry, Martha Oakley, advisor

2017-present Annie MacKenzie Ph.D. MCDB, Soni Lacefield, advisor

2018-present Hema Latha Ph.D. Neurobiology, Drexel University, Peter Baas, advisor