

Amanda Charlesworth : Vita

Campus Address

Department of Integrative Biology
University of Colorado Denver
Campus Box 171
PO Box 173364
Denver, CO 80217-3364

Education

- 1996** Ph.D., University College London and Imperial Cancer Research Fund (now Cancer Research, UK (CRUK)), London, UK, Cell Biology.
1992 B.Sc.(Hons), University of Kent at Canterbury, UK, Biochemistry.

Professional Experience

- 2018 –** Associate Chair, Department of Integrative Biology, University of Colorado, Denver.
2016 – Associate Professor, Department of Integrative Biology, University of Colorado, Denver.
2010 – 2016 Assistant Professor, Department of Integrative Biology, University of Colorado, Denver.
2009 Research Associate Professor, Department of Neurobiology and Developmental Sciences, UAMS.
2006 – 2009 Director, Molecular Biology Core Facility, Center for Translational Neuroscience, UAMS.
2001 – 2008 Research Assistant Professor, Department of Neurobiology and Developmental Sciences, University of Arkansas for Medical Sciences, Little Rock, AR.
1998 – 2001 Research Associate, Department of Medicine, University of Chicago, Chicago, IL.
1996 – 1997 Post-doctoral Fellow, Department of Molecular Oncology, Bristol Myers Squibb, Princeton, NJ.
1990 – 1991 Industrial Placement Student, Neuroscience Research Institute, Merck, Sharpe and Dohme, Harlow, Essex, UK.
1989 Summer student, Smith, Kline and French, Welwyn Garden City, Herts, UK

Peer Reviewed Publications (27 total)

- 2017** Cook, J. M., and Charlesworth, A. (2017) *Insertion of inter-domain linkers improves expression and bioactivity of Zygote arrest (Zar) fusion proteins*. Prot. Eng. Des. Sel. **30**: 313-319. [PubMed](#)
- 2013** Yamamoto, T., Cook, J. M., Kotter, C. V., Khat, T., Silva, K. D., Ferreyros, M, Holt, J. W., Knight, J. D., and **Charlesworth, A.** (2013) *Zar1 represses translation in Xenopus oocytes and binds to the TCS in maternal mRNAs with different characteristics than Zar2*. Biochimica et biophysica acta, **1829**: 1034-1046. [PubMed](#)
- 2013** **Charlesworth, A.**, Meijer, H.A., and de Moor, C.H. (2013) *Specificity factors in cytoplasmic polyadenylation*. (2013) WIREs RNA, **4**: 437-461 (Invited Review) [PubMed](#)

- 2012** Charlesworth A, Yamamoto TM, Cook JM, Silva KD, Kotter CV, Carter GS, Holt JW, Lavender HF, MacNicol AM, Wang YY, Wilczynska A. (2012) *Xenopus laevis* Zygote arrest 2 (*zar2*) encodes a zinc finger RNA-binding protein that binds to the Translational Control Sequence in the maternal *Wee1* mRNA and regulates translation. *Dev. Bio.*, **369**:177-190 [PubMed](#)
- 2011** Yates C, Garrison K, Reese NB, Charlesworth A, Garcia-Rill E. (2011) *Novel mechanism for hyperreflexia and spasticity*. *Prog. Brain Res.*, **188**: 167-80. [PubMed](#)
- 2011** Childs GV, Akhter N, Haney A, Syed M, Odle A, Cozart M, Brodrick Z, Gaddy D, Suva LJ, Akel N, Crane C, Benes H, Charlesworth A, Luque R, Chua S, Kineman RD. (2011) *The somatotrope as a metabolic sensor: deletion of leptin receptors causes obesity*. *Endocrinology*, **152**: 69-81. [PubMed](#)
- 2010** Yates, C., Garrison, K., Charlesworth, A., Reese, NB. and Garcia-Rill, E. (2010) *Therapeutic approaches for spinal cord injury induced spasticity*. *Translational Neuroscience*, 160-169
- 2010** Hayar A, Charlesworth A, Garcia-Rill E. (2010) *Oocyte triplet pairing for electrophysiological investigation of gap junctional coupling*. *J. Neurosci. Methods*, **188**: 280-286. [PubMed](#)
- 2009** Yates, C., Charlesworth, A., Reese, N., Ishida, K., Skinner, R., and Garcia-Rill, E. (2009) *Modafinil normalized hyperreflexia after spinal transection in adult rats*. *Spinal Cord*, **47**: 481-485 [PubMed](#)
- 2008** Yates, C., Charlesworth, A., Reese, N., Skinner, R., and Garcia-Rill, E. (2008) *The effects of passive exercise therapy initiated prior to or after the development of hyperreflexia following spinal transection*. *Exp. Neurol.*, **213**: 405-9. [PubMed](#)
- 2008** Yates C, Charlesworth A, Allen SR, Reese NB, Skinner RD, Garcia-Rill E. (2008) *The onset of hyperreflexia in the rat following complete spinal cord transection*. *Spinal Cord*, **46**: 798-803. [PubMed](#)
- 2008** Wang, Y., Charlesworth, A., Byrd, S.M., Gregerson, R., MacNicol, M.C., MacNicol, A.M. (2008) *A novel mRNA 3' untranslated region translational control sequence regulates Xenopus Wee1 mRNA translation*. *Dev. Bio.*, **317**: 454-466 [PubMed](#)
- 2008** Sun L, Hodeify R, Haun S, Charlesworth A, Macnicol AM, Ponnappan S, Ponnappan U, Prigent C, Machaca K. (2008) *Ca²⁺ homeostasis regulates Xenopus oocyte maturation*. *Biol. Reprod.*, **78**: 726-35. [PubMed](#)
- 2008** Garcia-Rill, E., Charlesworth, A., Heister, D., Ye, M., and Hayar, A. (2008) *The developmental decrease in REM sleep: the role of transmitters and electrical coupling*. *Sleep*, **31**: 673-90 (Review) [PubMed](#)
- 2007** Garcia-Rill, E., Heister, DS, Ye, M., Charlesworth, A., and Hayar, A. (2007) *Electrical coupling: novel mechanism for sleep-wake control*. *Sleep*, **30**: 1405-1414 (rapid publication) [PubMed](#)
- 2007** Heister, D.S., Hayar, A., Charlesworth, A., Yates, C., Zhou, Y-H., Garcia-Rill, E. (2007) *Evidence for electrical coupling in the SubCoeruleus (SubC) nucleus*. *J. Neurophys.*, **97**: 3142-3147. (subject of an editorial focus) [PubMed](#)
- 2006** Charlesworth, A., Wilczynska, A., Thampi, P., Cox, L.L. and MacNicol, A.M. (2006) *Musashi regulates the temporal order of mRNA translation during Xenopus oocyte maturation*. *EMBO J.*, **25**: 2792-2801 [PubMed](#)
- 2004** Charlesworth A., Cox L. L. and MacNicol A.M. (2004) *Cytoplasmic Polyadenylation Element (CPE)- and CPE-binding Protein (CPEB)-independent Mechanisms Regulate*

- Early Class Maternal mRNA Translational Activation in Xenopus Oocytes.* J. Biol. Chem. **279**: 17650-17659 [PubMed](#)
- 2002** Charlesworth A., Ridge J.A., King L.A., MacNicol M.C. and MacNicol A.M. (2002) *A novel regulatory element determines the timing of Mos mRNA translation during Xenopus oocyte maturation.* EMBO J., **21**: 2798-2806. [PubMed](#)
- 2001** Tedford K., Nitschke L., Girkontaite I., **Charlesworth A.**, Chan G, Sakk V., Barbacid M. and Fischer K.D. (2001) *Compensation between Vav-1 and Vav-2 in B cell development and antigen receptor signaling.* Nat. Immunol., **2**: 548-555. [PubMed](#)
- 2001** Welk J.F., **Charlesworth A.** and MacNicol A.M. (2001) *Identification and characterization of a human cytoplasmic polyadenylation element binding protein.* Gene, **263**: 113-120. [PubMed](#)
- 2000** **Charlesworth A.**, Welk J. and MacNicol A.M. (2000) *The temporal control of Wee1 mRNA translation during Xenopus oocyte maturation is regulated by cytoplasmic polyadenylation elements within the 3' untranslated region.* Dev. Bio., **227**: 706-719. [PubMed](#)
- 1999** Howard E.L., **Charlesworth A.**, Welk J. and MacNicol A.M. (1999) *The MAP kinase signaling pathway stimulates Mos mRNA cytoplasmic polyadenylation during Xenopus oocyte maturation.* Mol. Cell. Biol., **19**: 1990-1999. [PubMed](#)
- 1997** **Charlesworth A.** and Rozengurt E. (1997) *Bombesin and neuromedin B stimulate the activation of p42mapk and p74raf-1 via a PKC-independent pathway in Rat-1 cells.* Oncogene, **14**: 2323 – 2329. [PubMed](#)
- 1996** **Charlesworth A.**, Broad S. and Rozengurt E. (1996) *The bombesin/GRP receptor transfected into Rat-1 fibroblasts couples to phospholipase C activation, tyrosine phosphorylation of p125FAK and paxillin and cell proliferation.* Oncogene, **12**: 1337-1345. [PubMed](#)
- 1994** **Charlesworth A.** and Rozengurt E. (1994) *Thapsigargin and di-tert-butylhydroquinone induce synergistic stimulation of DNA synthesis with phorbol ester and bombesin in Swiss 3T3 cells.* J. Biol. Chem., **269**: 32528 – 32535. [PubMed](#)
- 1992** McAllister G., **Charlesworth A.**, Snodin C., Beer M.S., Noble A.J., Middlemiss D.N., Iversen L.L. and Whiting P. (1992) *Molecular cloning of a serotonin receptor from human brain (5HT1E): A fifth 5HT1-like subtype.* Proc. Natl. Acad. Sci., USA **89**: 5517-5521. [PubMed](#)

Peer Reviewed Book Chapters

- 2008** Garcia-Rill E, Wallace-Huitt T, Mennemeier M, **Charlesworth A.**, Heister D, Ye M, Yates C. Neuropharmacology of pediatric and adult sleep and wakefulness, In: Manual to the Wiley Guide to Sleep Medicine, T.L. Lee-Chiong, Ed., Wiley, New Jersey, In Press, 2008
- 2008** Garcia-Rill, E., Wallace-Huitt, T., Mennemeier, M., **Charlesworth, A.**, Heister, D., Ye, M. and Yates, C. “*Reticular activating system*”, The New Encyclopedia of Neuroscience, edited by Larry Squire et al., 2008.
- 1998** **Charlesworth A.** and Rozengurt E. (1998). *The bombesin receptor is coupled to multiple signal transduction pathways and induces cell proliferation.* In: Cell Growth and Oncogenesis. 139 - 159. P. Bannasch, D. Kanduc, S. Papa and J.M. Tager (eds). Published by Birkhauser Verlag AG.

Grants

Institutional grants

- 2016** University of Colorado Denver, College of Liberal Arts and Sciences, CRISP, *Developing Tools to Manipulate Embryogenesis*. \$10,000
- 2016** University of Colorado Denver, Undergraduate Research Opportunity Program. *How does Zar regulate development of embryos?* PIs Trumpie, A., Oviedo, J., Russo-Pearl, S. 07/01/2016 – 06/31/2017, \$3600
- 2015** University of Colorado Denver, Office of Research Support, *Role and regulation of Zygote arrest proteins*. \$10,000.
- 2014** University of Colorado Denver, Undergraduate Research Opportunity Program. PI: Kenneth Valles. *Zygote Arrest Proteins: Pioneering Perspectives in Mammalian Embryogenesis*. 06/01/2014 – 06/31/2015, \$1600
- 2013** University of Colorado Denver, College of Liberal Arts and Sciences CRISP (CLAS research innovation seed program) award, *Proof of concept for a general gene expression mechanism in early animal development*, 05/01/2013 – 04/31/2014, \$10,000
- 2011** University of Colorado Denver, Undergraduate Research Opportunity Program. *How do the Zygote Arrest proteins bind mRNA?* PIs: Terry Khat, Kevin Silva. 06/01/2011 – 06/31/2012, \$3200
- 2007** NIH/NCRR. Pilot Study. PI: A. Charlesworth. *Molecular Regulation of Neuronal Gap Junctions*. 12/01/2007 - 06/31/2008, \$50,000
- 2007** University of Arkansas for Medical Sciences Medical Research Endowment. Mr. and Mrs. Frank Whitbeck Research Award. PI: A. Charlesworth. *Genetic Analysis of Development*. 01/01/2007 - 12/31/2007, \$15,000
- 2006** University of Arkansas for Medical Sciences. Research Council of the College of Medicine Award. PI: A. Charlesworth. *Regulation of M-Phase by Zar family proteins*. 11/01/2006 - 10/31/2007, \$15,000.
- 2006** NIH/NCRR. Pilot Study. PI: A. Charlesworth. *Control of Connexin-36 expression in spinal cord injury*. 10/01/2006 - 06/31/2007, \$50,000
- 2002** American Cancer Society. Institutional Research Grant. PI: A. Charlesworth. *Regulation of the Mos proto-oncogene*. 07/01/2002 – 06/30/2003, \$20,000
- 2001** University of Arkansas for Medical Sciences Medical Research Endowment Award. PI: A. Charlesworth. *Control of Mos translation*. 10/01/2001 – 09/30/2002, \$15,000

External grants

- 2018** NIH/NICHD. R15. PI: A. Charlesworth. *Maternal control of zygotic genome activation by the RNA binding proteins Zar1 and Zar2*. 09/01/2018 – 08/31/2021, \$298,000.
- 2009** NIH/NICHD. R01. PI: G. V. Childs, Co-I: A. Charlesworth. *The Significance of Leptin Signals to Neonatal Somatotropes and Gonadotropes*, 08/14/2009 – 06/30/2014, \$1,250,000. (Participation terminated 12/31/09)
- 2008** NIH/NINDS. R01. PI: E. Garcia-Rill, Co-I: A. Charlesworth. *Central modulation of rhythms*, 12/01/2008 – 11/30/2013, \$1,250,000. (Participation terminated 12/31/09)
- 2008** American Cancer Society Research Scholar Grant. PI: A. Charlesworth. *Role of Zar family proteins in M-phase control*. 01/01/2008 – 12/31/2011. \$600,000. No cost extension to 12/31/2012 due to time lost in move.
- 2003** NIH/NICHD. R01. PI: A. MacNicol, Co-I A. Charlesworth. *Maternal Gene Regulation in Early Vertebrate Development*. 07/01/2003 – 06/30/2006, \$657,000

Travel Grants

- 2015** Society for Developmental Biology Annual Meeting, Snowbird, Utah. \$700
2016 Dissemination grant, CLAS, University of Colorado Denver, \$1000

Invited seminars

- 2017** University of Colorado Denver Anschutz Medical Campus. “*Zygote arrest (Zar) – RNA binding proteins in cancer, fertility and early development*”
2012 University of Northern Colorado, Greeley. “*Maternal Control of Development*”
2009 University of Colorado, Denver, CO. “*mRNA translational control of early development*”
2009 University of Wisconsin, Milwaukee, WI. “*mRNA translation control of cell cycle re-entry in early development*”
2009 Rutgers University, Newark, NJ. “*mRNA translational control of early development*”
2008 University of Toledo, Ohio. “*Regulation of mRNA translational control of early development*”
2007 Baylor College of Medicine, Houston, TX. “*Progesterone stimulation of mRNA translation in maturing oocytes*”

Non-Peer Reviewed Publications

Published meeting abstracts. First author is presenting author.

- 2015** J Cook, **A Charlesworth**. *The Developmentally Important RNA-binding Protein, Zygote arrest (Zar), Regulates mRNA Translation*. The FASEB Journal 29 (1 Supplement), 711.18. Experimental Biology, Boston MA, March 2015.
- 2013** JM Cook, TM Yamamoto, **A Charlesworth**. *Interactions of Zygote arrest (Zar) proteins with known translation repressors in early development*. MOLECULAR BIOLOGY OF THE CELL 24
- 2011** **Amanda Charlesworth**, Gwen Carter, Jonathan Cook, Justin Holt, Terry Khat, Heather Lavender, Angus MacNicol, Kevin Silva, Yi Ying Wang, Anna Wilczynska, Tomomi Yamamoto. *A role for Xenopus Zygote Arrest 2 (Xzar2) in the regulation of key cell cycle mRNAs*. Developmental Biology 08/2011; 356(1):266-267
- 2011** JM Cook, TM Yamamoto, **A Charlesworth**. *A Role of Xenopus Zygote Arrest 2 (Xzar2) in Translational Regulation of Key Cell Cycle mRNAs*. MOLECULAR BIOLOGY OF THE CELL 22
- 2011** KD Silva, T Khat, TM Yamamoto, **A Charlesworth**. *Zygote Arrest Proteins Bind Maternal mRNAs*. MOLECULAR BIOLOGY OF THE CELL 22
- 2009** GV Childs, N Akhter, A Haney, Z Brodrick, D Gaddy, L Suva, C Crane, H Benes, **A Charlesworth**, R Kineman, R Luque, S Chua. *Eliminating leptin signals to somatotropes reduces GH and fertility and causes obesity in adults*. The FASEB Journal 23 (1_MeetingAbstracts), LB28
- 2007** **Charlesworth A.**, Yates C., Ye M., Zhou Y., Garcia-Rill E. *Developmental changes in Connexin 36 expression and protein in the SubCoeruleus nucleus*. APSS abstract, June 2007. Poster
- 2006** MacNicol M, Srivastava T, **Charlesworth A**, MacNicol A. *A role for targeted mRNA translation in PC12 cell differentiation*. Neurosci Abst 2006; 32: 29.7.
- 1992** DN Middlemiss, AJ Noble, MS Beer, **A Charlesworth**, G McAllister. *Comparison of the pharmacology of the human 5-HT1E receptor with a novel cloned serotonin receptor, AC1*. Clinical Neuropharmacology 15 (Part B), 112B

Peer Reviewed Presentations at Meetings (first author is presenting author)

- 2016** Cook, J., **Charlesworth, A.** *Inclusion of inter-domain linkers improves the stability and function of fusion proteins in cell-based assays.* 251st American Chemical Society National Meeting, San Diego, CA, March 2016. Platform.
- 2014** Cook, J., Yamamoto, T., **Charlesworth, A.** *Interactions of Zygote arrest (Zar) proteins with known translation repressors in early development.* Society for Developmental Biology Southwest Regional Meeting 2014, Denver, CO. Platform.
- 2012** **Charlesworth, A.**, Cook, J., Yamamoto, T., Vogel, C., Khat, T., Silva, K. *Zygote Arrest Proteins – a new family of trans-acting factors that regulate translation of maternal mRNAs.* Cold Spring Harbor Laboratory Translational Control, September 2012, Platform presentation.

Non-Peer Reviewed Presentations at Meetings (first author is presenting author)

- 2017** **Charlesworth, A.**, Trumpie, A., Oviedo, J., Russo-Pearl, S. and Valles, K. Mutation of the RNA-binding protein Zygote arrest 2 (Zar2) disrupts oocyte maturation and embryogenesis. Society for Developmental Biology 76th Annual Meeting, Minneapolis, MN. July 2017.
- 2016** **Charlesworth, A.** and Cook, J. M. *The developmentally important RNA-binding protein, Zygote arrest (Zar), regulates mRNA translation.* Translational Control – 2016. Cold Spring Harbor Laboratory, September 2016
- 2015** Cook, J. M., and **Charlesworth, A.** *Zygote arrest (Zar) proteins regulate mRNA translation and disrupt formation of the translation initiation complex.* Society for Developmental Biology 74th Annual Meeting. Snowbird UT, July 2015
- 2015** Valles, K., and **Charlesworth, A.**, *Zygote Arrest Proteins Regulate Embryogenesis via Translational Control.* Society for Developmental Biology 74th Annual Meeting
- 2014** Valles, K. **Charlesworth, A.** UV-crosslinking RNA to protein in whole *Xenopus* oocytes. Society for Developmental Biology Southwest Regional Meeting 2014, Denver, CO. Poster.
- 2013** Cook, J., Yamamoto, T., **Charlesworth, A.** *Interactions of Zygote arrest (Zar) proteins with known translation repressors in early development.* American Society for Cell Biology 2013 Annual Meeting, New Orleans, LA. Poster.
- 2013** Minshall, N., Marnef, A., **Charlesworth, A.**, and Standart, N. *Xenopus p54 RNA helicase (DDX6) proteome in oocytes and eggs: old friends, novel partners and changing patterns.* EMBO meeting on RNA decay, Strasbourg, 2013. Poster.
- 2012** Cook JM, **Charlesworth A**, Yamamoto TM, Silva KD, Kotter CV, Carter GS, Holt JW, Lavender HF, MacNicol AM, Wang YY, Wilczynska A. *Xenopus laevis Zygote arrest 2 (Xzar2) encodes a zinc finger RNA-binding protein that binds to the Translational Control Sequence in the maternal Wee1 mRNA and regulates translation.* Cold Spring Harbor Laboratory Translational Control, September 2012, Poster.
- 2011** Khat* T., Silva* K., Yamamoto T., Cook J., Vogel C., **Charlesworth A.** *Zygote arrest proteins bind maternal mRNAs.* American Society for Cell Biology, 2011 Annual Meeting, Denver CO. Poster
- 2011** Cook J., Yamamoto T., Carter G., **Charlesworth A.** *A role for Xenopus Zygote arrest 2 (Xzar2) in the regulation of key cell cycle mRNAs.* American Society for Cell Biology, 2011 Annual Meeting, Denver CO. Poster

- 2009** Charlesworth A., Holt J., Lavender H., Wang Y. Y., MacNicol A. *The RNA-binding protein that interacts with the Translational Control Sequence is a new member of the Zygote Arrest family.* 14th Annual Meeting RNA Society (2009) Poster.
- 2007** Wang Y, Charlesworth A, Byrd S, Gregerson R, MacNicol M, MacNicol, A. *A novel mRNA 3' untranslated region translational control sequence regulates Xenopus maternal mRNA translation.* The 47th Annual Meeting of the American Society for Cell Biology, Washington, DC. 2007 Poster.
- 2006** MacNicol, M.C., Srivastava, T., Wilczynska, A., Charlesworth, A. and MacNicol, A.M. (2006) *Targeted mRNA translational control-perspectives from oocyte meiotic maturation and neuronal differentiation.* Cold Spring Harbor, Translational Control. Oral presentation
- 2006** MacNicol, M.C., Srivastava, T., Charlesworth, A. and MacNicol, A.M. (2006) *A role for targeted mRNA translation in PC12 cell differentiation.* SfN Neuroscience 2006, 36th Annual Meeting. Poster
- 2005** Srivastava, T., Charlesworth, A., MacNicol, A.M. and MacNicol, M.C. *Neuronal differentiation of PC12 cells is dependent upon CPEB1-mediated mRNA translational control.* Gordon Research Conference (2005). Poster.
- 2005** Charlesworth A., Thampi P., Cox L. L. and MacNicol A.M. *Musashi regulates early mRNA translation during Xenopus oocyte maturation.* EMBL Conference on Translational Control. September 2005. Oral presentation.
- 2004** Charlesworth A., Cox L.L., MacNicol A.M. *Effects of hormone induced signalling pathways on mRNA translation in meiotically maturing Xenopus oocytes.* Gordon Research Conference on Growth Factor Signalling. (2004). Poster.
- 2002** Charlesworth A., MacNicol M.C., Cox L.L., and MacNicol A.M. *Distinct cis elements control the temporal sequence of mRNA translation during early vertebrate development.* Cold Spring Harbor Laboratory, Translational Control (2002). Poster.
- 2001** Charlesworth A., Ridge J., King L.A. and MacNicol A.M. *A novel regulatory element determines the time of mos mRNA translation during Xenopus oocyte maturation.* Translation UK (2001). Oral presentation.
- 2000** Charlesworth A., MacNicol A.M. *Maturation-promoting factor controls the timing of cytoplasmic polyadenylation of multiple mRNAs during Xenopus oocyte maturation.* Cold Spring Harbor Laboratory, Translational Control (2000). Poster.
- 2000** Charlesworth A., Welk J. and MacNicol A.M. *The temporal control of Wee1 mRNA translation during Xenopus oocyte maturation is regulated by cytoplasmic polyadenylation elements within the 3' untranslated region.* Cold Spring Harbor Laboratory, Translational Control (2000). Poster.
- 1998** Charlesworth A., Howard E.L. and MacNicol A.M. *The MAP kinase signaling pathway stimulates the cytoplasmic polyadenylation of maternal mRNA during Xenopus oocyte maturation.* Midwest Developmental Biology Meeting (1998). Oral presentation.
- 1995** Charlesworth A. and Rozengurt E. *Thapsigargin and di-tert-butylhydroquinone induce synergistic stimulation of DNA synthesis with phorbol ester and bombesin in Swiss 3T3 cells.* Gordon Research Conference, Calcium Signaling (1995). Poster.

Professional Organizations

Member Society for Developmental Biology
Member RNA Society

Member American Society of Cell Biology
Member American Society of Biochemistry and Molecular Biology

Courses Taught

Biology of Cancer BIOL 4634/5634
Cell Cycle, BIOL 4068/5068
General Cell Biology BIOL 3611
Topics in Developmental Biology BIOL 4050/5050
Principles of Research BIOL 5705
Undergraduate/graduate seminar BIOL 4990/6655

University of Arkansas for Medical Sciences

Cellular and Developmental Neuroscience (Neural stem cells and technology; Neural induction and pattern formation)
Medical Cell Biology Laboratory

Service

Department

2017 – 2018	Integrative Biology Curriculum Committee
2017 – 2018	Developmental Biology Search Committee
2016 – present	Mentoring committee. 2018, Chair
2015 – 2016	Physiological Genomics Search Committee
2014 – present	Student Scholarship and Awards Committee ((Co)Chair)
2013 – present	Faculty Advisor, UCD Biology Club
2013 – 2016	Merit Review Committee
2011 – 2015	Integrative Biology Curriculum Committee
2012 – 2014	PhD program steering committee
2014	PhD Admissions committee
2013	PhD Admissions committee
2011 – 2014	Integrative Biology Graduate Advisory Committee
2011 – 2012	Genetics Assistant Professor search committee
2011 – 2012	Molecular Biology Assistant Professor search committee
2011	Co-organizer, Integrative Biology Student Day (open house)
2011	General Biology Instructor search committee
2011	General Cell Biology Lecturer search committee

College of Liberal Arts and Sciences

2018	Health Careers Director Search Committee
2018	UROP grant reviewer
2017	UROP grant reviewer
2016	Dissemination Grant evaluation committee
2010 – 2017	CLAS Capital Equipment Fund

University

2014 – 2017	Undergraduate Council
2011 – 2014	CU Downtown Faculty Assembly

University of Arkansas for Medical Sciences

- 2008** Professionalism Initiative advisory group. UAMS
- 2008** Departmental Strategic Planning, Research Team Member. UAMS
- 2008** Departmental Strategic Planning, Infrastructure Team Leader. UAMS
- 2008** Medical Research Endowment proposal review. UAMS
- 2007 – 2009** Institutional Animal Care and Use Committee. UAMS.
- 2001 – 2003** Developmental Biology Advisory Committee, Department of Neurobiology and Developmental Sciences, UAMS.

Manuscript Review

Journal of Neuroscience Research
Experimental Cell Research
Molecular Development and Reproduction
PlosONE
Journal of Visualized Experiments
Biology of Reproduction
Molecular and Cellular Endocrinology
Journal of Undergraduate Research

Public Service

- 2011** “*Meet an American Cancer Society Scientist*”, Relay for Life, Grand Junction, CO
- 2009** “*Research past/present/future in relation to the ACS*” Survivor Dinner for the Relay For Life of Cabot, AR
- 2008** Radio Interview, American Cancer Society Living Billboard, FM 103.7 The Buzz and Lamar, Little Rock, AR.
- 2006** *Why I use gel electrophoresis*. International Baccalaureate class, Mount St. Mary Academy, Little Rock, AR
- 1994** *Measuring proliferation of cells*. The Public Understanding of Science, Imperial Cancer Research Fund (now Cancer Research, UK (CRUK), London, UK.

Awards, Recognitions, Honors

- 2006** Mr. and Mrs. Frank Whitbeck Research Award, PI
- 1995** ICRF annual colloquium best poster
- 1992** Pfizer prize for pharmacology
- 1988** Smith Kline and French Scholarship