University of Miami
Curriculum Vitae
Standard Format

1. Date: 4/5/2022

I. PERSONAL

2. Name: Laura Bianchi
3. Home Phone: none, cell: 615-400-2118
4. Office phone: 305-243-1887
5. Home Address: 836 Alberca St., Coral Gables, FL 33134
6. Current Academic Rank: Professor
6a. Current Track of Appointment: Tenured
7. Primary Department: Physiology and Biophysics
8. Secondary or joint appointment: none
9. Citizenship: Italian/American
10. Visa type: NA

II. HIGHER EDUCATION

11. Institutional:

University of Florence, Italy; **PhD in Physiology**; May 1997
University of Milan, Italy, **BS/MS in Biochemistry,** 1990-1992

12. Non-institutional: N/A

13. Certification, license: N/A

III. EXPERIENCE

14. Academic: (institutions; rank/status; dates)

Department of Physiology and Biophysics, University of Miami Miller School of Medicine, Miami, FL, **Professor,** 2019-present.

Department of Physiology and Biophysics, University of Miami Miller School of Medicine, Miami, FL, **Associate Professor,** 2013-present. **Tenured**, June 2015-present.

Department of Physiology and Biophysics, University of Miami Miller School of Medicine, Miami, FL**, Assistant Professor (tenure-earning track),** 2006-2013.

Department of Molecular Biology and Biochemistry, Rutgers University, Piscataway, NJ, **Assistant Professor (research track),** 2001-2006.

Department of Medicine, Vanderbilt University, Nashville, TN, **Postdoctoral Research Fellow, (**Supervisor: Alfred L. George Jr.), 1998-2001.

Department of Physiology and Biophysics, Case Western Reserve University, Cleveland, OH, **Junior Researcher, (**Supervisor: Arthur M. Brown), 1997-1998.

15. Hospital appointments: N/A

16. Non academic: N/A

17. Military: N/A

IV. PUBLICATIONS *h*-index=26

18. Books and monographs:

1) Bianchi L. DEG/ENaC ion channels in the function of the nervous system: from worm to man. Book Chapter in ***Ion Channels in Biophysics and Physiology***, Springer Nature, 2021, **DOI:** 10.10007/978-981-16-4254-8, **Series ISSN** 0065-2598.

2) Fernandez-Abascal J., Graziano B., Encalada N. and Bianchi L. Glial chloride channels in the function of the nervous system across species. Book chapter ***Ion Channels in Biophysics and Physiology,*** Springer Nature, 2021, DOI: 10.10007/978-981-16-4254-8, **Series ISSN** 0065-2598, corresponding author.

3) Bianchi L. and Driscoll M. Culture of embryonic *C. elegans* cells for electrophysiological and pharmacological analyses. Book Chapter in ***WormBook***, ed. The *C. elegans* Research Community, (http://www.wormbook.org). Sep 30:1-15, 2006. http://www.wormbook.org/chapters/www_culture/culture.html PMID: 18050435**,** corresponding author.

4) Bianchi L. and Driscoll M. Heterologous expression of *C. elegan*s ion channels in *Xenopus* oocytes. Book Chapter in ***WormBook***, ed. The *C. elegans* Research Community, (http://www.wormbook.org). Aug 1:1-16, 2006. (http://www.wormbook.org/chapters/www_channelexpress/channelexpress.html). PMID: 18050441, corresponding author.

5) Bianchi L., and Driscoll M., The molecular basis of touch sensation as modeled in *Caenorhabditis elegans.* Book Chapter in "***Transduction channels in sensory cells***", (eds. Frings, S. & Bradley J.), 1-29, 2004 (Wiley-VCH, Weinheim, Germany), first author.

19. Juried or refereed journal articles or exhibitions:

1) Fernandez-Abascal J. and Bianchi L. A protocol for imaging calcium and chloride in *C. elegans* glia upon touch stimulation. **STAR Protocols**, *in press*.

2) Fernandez-Abascal J. and Bianchi L. The Cl^- channel CLH-1 mediates $HCO3^-$ efflux from the AMphid sheath glia in *C. elegans*. microPublication Biology, 2022. microPublication Biology. 10.17912/micropub.biology.000510.

3) Fernandez-Abascal J., Johnson, C. K., Graziano B., Wang, L., Encalada N. and Bianchi L. A glial ClC Cl^- channel mediates nose touch responses in *C. elegans*. ***Neuron,*** 2022, 110(3): 470-485. PMID: 34861150.

4) Johnson C. K., Miller D. M. III and Bianchi L. Effect of the protease plasmin on C. elegans hyperactive DEG/ENaC channels MEC-4(d) and UNC-8(d). microPublication Biology, 2021. 10.17912/micropub.biology.000414, corresponding author.

5) Johnson K. C., Fernandez Abascal J., Wang Y., and Bianchi L. Requirement of glial Na^+/K^+-ATPase in touch sensation reveals ionic and metabolic link between glia and touch neurons in *C. elegans*. ***Journal of Neurophysiology,*** 2020, 123(5): 2064-2074. PMID:32292107, PMCID: PMC7444924, corresponding author.

6) Wang Y. and Bianchi L. Temperature-sensitive mosquito TRP channel rescues touch deficits caused by knock-out of a DEG/ENaC channel in *C. elegans* glia. microPublication Biology, 2020. 10.17912/micropub.biology.000209, corresponding author.

7) Matthewman C., Johnson C. K., Miller, D. M. III. and Bianchi L. Functional features of the "finger" domain of DEG/ENaC channels MEC-4 and UNC-8. ***American Journal of Cell Physiology***, 315(2):C155-163, 2018, PMID: 29694233, corresponding author.

8) Sangaletti R., D'Amico M., Grant J., Della-Morte D., and Bianchi L. Knock-out of a mitochondrial sirtuin protects neurons from degeneration in *C. elegans.* ***Plos Genetics***, Aug 18; 13(8):e1006965, 2017, PMID: 28820880, PMCID: PMC5576752, corresponding author.

9) Matthewman C., Miller-Fleming T. W., Miller, D. M. III. and Bianchi L. Ca^{2+} permeability and Na^+ conductance in cellular toxicity caused by hyperactive DEG/ENaC channels. ***American Journal of Cell Physiology***, 311(6):C920-930, 2016, PMID: 27760755, corresponding author.

10) Miller-Fleming T. W., Sarah C. Petersen S. C., Manning L., Matthewman C., Gornet M., Beers A., Hori S., Mitani S., Bianchi L., Richmond J., David M. Miller, D. M. III. The DEG/ENaC Cation Channel Protein UNC-8 Drives Activity-Dependent Synapse Removal in Remodeling GABAergic Neurons. ***eLife***, Jul. 12; 5 pii: e14599, 2016. PMID: 27403890, PMCID: PMC4980115.

11) Grant J., Matthewman C., and Bianchi L. A novel mechanism of pH buffering in C. elegans glia: bicarbonate transport via the voltage-gated ClC Cl- channel CLH-1. ***Journal of Neuroscience*** 35(50): 16377-97, 2015. PMID: 26674864, PMCID: PMC4679820, corresponding author.

12) Zhuang G. Z., Keeler B., Grant J., Bianchi L., Fu E. S., Zhang Y. P., Erasso D. M., Cui J. G., Wiltshire T., Li Q., Hao S., Sarantopoulos K. D., Candiotti K., Wishnek S. M., Smith S. B., Maixner W., Diatchenko L., Martin E. R., Levitt R. C. Carbonic anhydrase-8 regulates inflammatory pain by inhibiting the ITR1-cytosolic free calcium pathway. ***PLoS One***, 10(3): e0118273, 2015. PMID: 25734498.

13) Sangaletti R., Dahl G., and Bianchi L. Mechanosensitive unpaired innexin channels in C. elegans touch neurons. ***American Journal of Cell Physiology***, 307(10): C966-77, 2014. PMID: 25252948, PMCID: PMC4233263, corresponding author.

14) Kamat S., Yeola S., Zhang W., Bianchi L.*, and Driscoll M*. NRA-2, a nicalin homolog,

regulates neuronal death by controlling surface localization of toxic *C. elegans* DEG/ENaCs. ***Journal of Biological Chemistry,*** 2014, Feb 24. [Epub ahead of print], PMID: 24567339, *co-corresponding authors.

15) Safratowich B., Hossain M., Bianchi L., and Carvelli L. Amphetamine potentiates the effects of β-Phenylethylamine through activation of an amine-gated chloride channel. ***Journal of Neuroscience,*** 34(13): 4686-91, 2014, PMID: 24672014, PMCID: PMC3965791.

16) Wang Y., Matthewman C., Han L., Miller T., Miller D. M. III and Bianchi L. Neurotoxic *unc-8* mutants encode constitutively active DEG/ENaC channels that are blocked by divalent cations. ***Journal of General Physiology***, 142(2): 157-69, 2013, PMID: 23898007, PMCID:PMC3727304, corresponding author.

17) Safratowich D. D, Lor C., Bianchi L., and Carvelli L. Amphetamine activates an amine-gated chloride channel to generate behavioral effects in *Caenorhabditis elegans*. ***Journal of Biological Chemistry***, 88(30): 21630-7, 2013, PMID: 23775081, PMCID:PMC3724622, corresponding author.

18) Sangaletti R. and Bianchi L. A method for culturing embryonic *C. elegans* cells". ***Jove***, (79): e50649, 2013, PMID: 24084243, corresponding author.

19) Han L., Wang Y., Sangaletti R., D'Urso G., Lu Y., Shaham S., and Bianchi L. Two novel DEG/ENaC channel subunits expressed in glia are needed for nose-touch sensitivity in *Caenorhabditis elegans*. ***Journal of Neuroscience***, 33(3): 936-949, 2013, PMID: 23325233, PMCID:PMC3711640, corresponding author.

20) Grant J., Tran V., Bhattacharya S. K., and Bianchi L. Ionic currents of human trabecular meshwork cells from control and glaucoma subjects. ***Journal of Membrane Biology***, 246(2): 167-75, 2013, PMID: 23135060, PMCID: PMC3557616, corresponding author.

21) Wang Y., D'Urso G., and Bianchi L. Knockout of glial channel ACD-1 exacerbates sensory deficits in a *C. elegans* mutant by regulating calcium levels of sensory neurons. ***Journal of Neurophysiology,*** 107(1): 148-58, 2012. PMID: 21994266, PMCID: PMC3349695, corresponding author.

22) Bianchi L. and Diez-Sampedro A. A single amino acid change converts the sugar sensor SGLT3 into a sugar transporter. ***PLoS One***, 5(4): e10241, 2010. PMID: 20421923, PMCID: PMC2857651, first author.

23) Wang Y. and Bianchi L., Insights into the molecular determinants of proton inhibition in an acid-inactivated degenerins and mammalian epithelial Na^+ channel. ***Biochemistry***, 48 (42), 10005–10013, 2009. PMID: 19769407, PMCID: PMC2764801, corresponding author.

24) Wang Y., Apicella A. Jr, Lee S-K, Ezcurra M., Slone R. D., Goldmit M., Schafer W. R., Shaham S., Driscoll M., and Bianchi L. A glial DEG/ENaC channel functions with neuronal channel DEG-1 to mediate specific sensory functions in *C. elegans.* ***European Molecular Biology Organization (EMBO) Journal***, 27(18): 2388-2399, 2008. PMID: 18701922, PMCID: PMC2543049, corresponding author.

25) Zhang W.*, Bianchi L.*, Lee W.-H., Wang Y., Israel S., and Driscoll M. Intersubunit interactions between mutant DEG/ENaCs induce synthetic neurotoxicity. ***Cell Death and Differentiation***, 15(11): 1794-1803, 2008. PMID: 18670436. **These two authors contributed equally to this work,* co-first author.

26) Tsechpenakis G.*, Bianchi L.*, Metaxas D., and Driscoll M. A novel computational approach for simultaneous tracking and feature extraction of *C. elegans* populations in fluid environments. ***Institute of Electrical and Electronics Engineers* (*IEEE) Transactions in Biomedical Engineering***, 55(5): 1539-1549, 2008. PMID: 18440900. **These two authors contributed equally to this work,* co-first author.

27) Royal D. C.*, Bianchi L.*, Royal M. A., Lizzio M. Jr., Mukherjee G., Nunez, Y. O., and Driscoll M. Temperature-sensitive mutant of the *Caenorhabditis elegans* neurotoxic MEC-4(d) DEG/ENaC channel identifies a site required for trafficking or surface maintenance. ***The Journal of Biological Chemistry***, 280(51): 41976-41986, 2005. PMID: 16239217. **These two authors contributed equally to this work,* co-first author.

28) Bianchi L., Gerstbrein B., Frøkjær-Jensen C., Royal D. C., Mukherjee G., Royal M. A., Xue J., Schafer W. R., and Driscoll M. The Neurotoxic MEC-4(d) DEG/ENaC sodium channel conducts calcium: implications for necrosis initiation. ***Nature Neuroscience***, 7 (12): 1337-1344, 2004. PMID: 15543143, first author.

29) Suzuki H., Kerr R., Bianchi L., Frøkjær-Jensen C., Slone D., Xue J., Gerstbrein B., Driscoll M., and Schafer W. R. *In vivo* imaging of *C. elegans* mechanosensory neurons demonstrates a specific role for the MEC-4 channel in the process of gentle touch sensation. ***Neuron***, 39(6): 1005-1017, 2003. PMID: 12971899.

30) Bianchi L., Kwok S. K., Driscoll M., and Sesti F. A potassium channel-MiRP complex controls neurosensory function in *Caenorhabditis elegans.* ***The Journal of Biological Chemistry***, 278: 12415-12424, 2003. PMID: 12533541, first author.

31) Rutledge E., Bianchi L., Christensen M., Boehmer C., Morrison R., Broslat A., Beld A. M., George A. L. Jr., Greenstein D., and Strange K. CLH-3, a ClC-2 anion channel ortholog activated during meiotic maturation in *C. elegans* oocytes. ***Current Biology***, 11 (3): 161-170, 2001. PMID: 11231150.

32) Bianchi L., Miller D. M. 3rd, and George A. L. Jr. Expression of a CIC chloride channel in *Caenorhabditis elegans* gamma-aminobutyric acid-ergic neurons. ***Neuroscience Letters***, 299 (3): 177-180, 2001. PMID: 11165764, first author.

33) Bianchi L., Priori S. G., Napolitano C., Surewicz, K. A., Dennis A. T., Memmi M., Schwartz P. J., and Brown A. M. Mechanisms of I_{Ks} suppression in LQT1 mutants. ***American Journal of Physiology***, 279: H3003-H3011, 2000. PMID: 11087258, first author.

34) Napolitano C., Schwartz P. J., Brown A. M., Ronchetti E., Bianchi L., Pinnavaia A., Acquaro G., and Priori S. G. Evidence for a cardiac ion channel mutation underlying drug-induced QT prolongation and life-threatening arrhythmias. ***Journal of Cardiovascular Electrophysiology***, 11 (6): 691-696, 2000. PMID: 10868744.

35) Emmi A., Wenzel H. J., Schwartzkroin P. A., Taglialatela M., Castaldo P., Bianchi L., Nerbonne J., Robertson G. A., and Janigro D. Do glia have heart? Expression and functional role for ether-a-go-go currents in hippocampal astrocytes. ***Journal of Neuroscience,*** 20 (10): 3915-3925, 2000. PMID: 10804231.

36) Bianchi L., Priori S. G., Shen Z.-J., Dennis A. T., Napolitano C., Ronchetti E., Bryskin R., Schwartz P. J., and Brown A. M. Cellular dysfunction of LQT5-minK mutants: abnormalities of I_{Ks}, I_{Kr} and trafficking in LQT syndrome. ***Human Molecular Genetics,*** 8 (8): 1499-1507, 1999. PMID: 10400998, first author.

37) Schwalbe R.A., Bianchi L., Accili E.A., and Brown A.M. Functional consequences of ROMK mutants linked to antenatal Bartter's syndrome and implications for treatment. ***Human Molecular Genetics***, 7 (6): 975-980, 1998. PMID: 9580661.

38) Priori, S. G., Schwartz, P. J., Napolitano, C., Bianchi. L., Dennis, A., De Fusco M., Brown A. M., and Casari, G. A recessive variant of the Romano-Ward syndrome? ***Circulation,*** 97(24): 2420-2425, 1998. PMID: 9641694.

39) Bianchi L., Wible B., Arcangeli A., Taglialatela M., Morra F., Castaldo P., Crociani O., Rosati B., Faravelli L., Olivotto M., and Wanke E. *Herg* encodes a K^+ channel highly conserved in tumors of different histogenesis: a selective advantage for cancer cells? ***Cancer Research***, 58 (4): 815-822, 1998. PMID: 9485040, first author.

40) Schwalbe R.A., Bianchi L., and Brown A.M. Mapping the kidney potassium channel ROMK1. Glycosylation of the pore signature sequence and the C-terminus. ***The Journal of Biological Chemistry,*** 272(40): 25217-25223, 1997. PMID: 9312136.

41) Guatteo E., Bianchi L., Faravelli L., Verotta L., Pellizoni F., Rogers C. B., and Wanke E. A novel K^+ channel blocker isolated from "Hiccup Nut" toxin. ***Neuroreport***, 7(15-17): 2575-2579, 1996. PMID: 8981426.

42) Schwalbe R. A., Wang Z., Bianchi L., and Brown A. M. Novel sites of N-glycosylation in ROMK1 reveal the putative pore-forming segment H5 as extracellular. ***The Journal of Biological Chemistry***, 271: 24201-24206, 1996. PMID: 8798662.

43) Arcangeli A., Faravelli L., Bianchi L., Rosati B., Gritti A., Vescovi A., Wanke E., and Olivotto M. Soluble or bound laminin elicits in human neuroblastoma cells short-or long-term potentiation of a K^+ inwardly rectifying current: relevance to neuritogenesis. ***Cell Adhesion and Communication***, 4(4-5): 369-385, 1996. PMID: 9117354.

44) Bianchi L.*, Roy M. L.*, Taglialatela M., Lundgren D.W., Brown A.M., and Ficker E. Regulation by spermine of native inward rectifier K^+ channels in RBL-1 cells. ***The Journal of Biological Chemistry,*** 271: 6114-6121, 1996. PMID: 8626398 *****These two authors contributed equally to this work,* co-first author.

45) Arcangeli A., Bianchi L., Becchetti A., Faravelli L., Coronello M., Mini E., Olivotto M., and Wanke E. A novel inward-rectifying K^+ current with a cell-cycle dependence governs the resting potential of mammalian neuroblastoma cells. ***The Journal of Physiology***, 489: 455-471, 1996. PMID: 8847640.

46) Bianchi L., Arcangeli A., Bartolini P., Mugnai G., Wanke E., and Olivotto M. An inward rectifier K^+ current modulates in neuroblastoma cells the tyrosine phosphorylation of the $pp125^{FAK}$ and associates proteins: role in neuritogenesis. ***Biochemical and Biophysical Research Communications***, 210(3): 823-829, 1995. PMID: 7539261, first author.

47) Wanke E., Bianchi L., Mantegazza M., Guatteo E., Mancinelli E., and Ferroni A. Muscarinic regulation of Ca^{2+} currents in rat sensory neurons: channel and receptor types, dose-response relationships and cross-talk pathways**.** ***European Journal of Neuroscience***, 6(3): 381-391, 1994. PMID: 8019675.

20. Other works, publications and abstracts

Reviews:

1) Wang L. and Bianchi L. Maintenance of protein homeostasis in glia extends life span in *C. elegans*. Review, ***Experimental Neurology***, 339:113648, 2021, PMID: 33600813.

2) Bianchi L. *C. elegans* glia are bona fide odorant receptor cells. ***Neuron,*** 108(4): 588-589, 2020. PMID: 33242427.

3) Bianchi L., Mechanotransduction: touch and feel at the molecular level as modeled in *Caenorhabditis elegans*. Review, ***Molecular Neurobiology***, 36(3): 254-271, 2007. PMID: 17955200.

4) Bianchi L. and Driscoll M., Protons at the gate: DEG/ENaC ion channels help us feel and remember. Review, ***Neuron***, 34(3): 337-340, 2002. PMID: 11988165, **first author**.

5) George A. L. Jr., Bianchi L., Link E. M., and Vanoye C. G. From stones to bones: the biology of ClC chloride channels. Review, ***Current Biology***, 11(15): R620-628, 2001. PMID: 11516971.

Recent (last 5 years) abstracts presented at national or international meetings:

1) Graziano B., Wang L., Fernandez-Abascal J., Encalada N., and Bianchi L. Glial KQT-2 K^+ channels are needed for aversive response to octanol. **International *C. elegans* Meeting, 2021,** virtual.

2) Wang L., Encalada N. Graziano B., and Bianchi L. Glial mediators of K^+ and Cl^- transport shape *C. elegans* olfaction and taste. **International *C. elegans* Meeting, 2021,** virtual.

3) Graziano B., Wang L., Fernandez-Abascal J., Encalada N., and Bianchi L. A glial Cl^- channel is the master regulator of ASH neurons' response to touch. **International *C. elegans* Meeting, 2021,** virtual.

4) Wang L., Grant J., Encalada N., and Bianchi L. "Role of glial enriched ion channels and transporters in *C. elegans* sensory behaviors". **International *C. elegans* Meeting, 2019,** Los Angeles, CA, (USA).

5) Johnson C.K., Fernandez-Abascal J., Wang Y., and Bianchi L. "Requirement of glial Na^+/K^+-ATPase in touch sensation highlights ionic and metabolic link between glia and touch neurons in *C. elegans*." **International *C. elegans* Meeting, 2019,** Los Angeles, CA, (USA).

6) Fernandez-Abascal J., Johnson C.K., and Bianchi L. " Cl^- **channels in glia control touch behavior in *C. elegans".* International *C. elegans* Meeting, 2019,** Los Angeles, CA, (USA).

7) Wang L., Grant J., Encalada N., and Bianchi L. "Role of glial enriched ion channels and transporters in *C. elegans* sensory behaviors". ***Florida Worm Meeting***, 2019, Melbourne, FL, (USA).

8) Fernandez-Abascal J., Johnson C.K., and Bianchi L. " Cl^- channels in glia control touch behavior in *C. elegans"* ***Florida Worm Meeting***, 2019, Melbourne, FL, (USA).

9) Bianchi L. "Glial channels and transporters control mechanosensation in *C. elegans*" ***Force gated channels, physiology, regulation and function,*** 2018, Berlin, Germany, invited talk.

10) Bianchi L. "Glial channels and transporters that mediate excretion of K^+ in the microenvironment between glia and neurons shape neuronal output in *C. elegans*" ***International Transmembrane Transporter Society,*** 2018, Vienna, Austria, invited talk.

11) Johnson C. K., Wang Y., Han L., and Bianchi L. "Neuronal output in *C. elegans* is shaped by glial channels and transporters via regulation of ionic composition of microenvironments" ***C. elegans Neurobiology Meeting***, 2018, Madison, WI, (USA).

12) Johnson C. K., Wang Y., Han L., and Bianchi L. "Glial regulators of ionic homeostasis shape neuronal output in *C. elegans*" ***Florida Worm Meeting***, 2018, Melbourne, FL, (USA) (abstract selected for platform presentation).

13) Johnson C. K., Wang Y., Han L., and Bianchi L. "Glial channels and transporters that mediate excretion of K^+ in the microenvironment between glia and neurons shape neuronal output in *C. elegans*" ***Biophysical Society Meeting***, 2018, San Francisco, CA, (USA).

14) Johnson C. K., Grant J., Han L., Wang Y., and Bianchi L. "Glial ion channels in glia/neuron interaction" ***FASEB conference on Ion Channels Regulation***, 2017, Steamboat Spring, CO, (USA) (invited talk).

15) Matthewman C., Miller-Flemming T., Miller D. M., and Bianchi L. "The role of Ca^{2+} permeability and Na^+ conductance in cellular toxicity caused by hyperactive DEG/ENaC channels." ***The Allied Genetics 2016 Conference***, Orlando, FL (USA).

16) Sangaletti R., D'Amico M., Grant J., Della-Morte D., and Bianchi L.. "Knock out of *C. elegans* sirtuin *sir-2.3* protects neurons from death". ***The Allied Genetics 2016 Conference***, Orlando, FL (USA).

17) Matthewman C., and Bianchi L. "Contribution of DEG/ENaC channels conductance versus Ca^{2+} permeability to neuronal death. **International *C. elegans* Meeting,** Los Angeles, CA, 2015.

18) Miller-Fleming T., Petersen S. C., Manning L., Matthewman C., Gornet M., Hori S., Mitani S., Bianchi L., Richmond J. E., and Miller D. M. III "The degenerin/epithelial sodium channel protein UNC-8 drives activity-dependent synaptic remodeling in GABAergic neurons." **International *C. elegans* Meeting,** Los Angeles, CA, 2015

19) Grant J., Matthewman C., Johnson C., Bianchi L. "CLH-1 is a bicarbonate permeable anion channel involved in amphid sheath glia pH regulation." **International *C. elegans* Meeting,** Los Angeles, CA, 2015 (abstract selected for platform presentation).

20) Sangaletti R., Dahl G., Bianchi L. "*C. elegans* touch neurons express plasma membrane innexin channels". **International *C. elegans* Meeting,** Los Angeles, CA, 2015.

21) Sangaletti R., Grant J., Della Morte D., Bianchi L. "Neuroprotective role of *C. elegans sir-2.3* knock out in neuronal death". **International *C. elegans* Meeting,** Los Angeles, CA, 2015.

22) Sangaletti R., Dahl G., Bianchi L. Mechanosensitive plasma membrane innexin channels in native *C. elegans* touch neurons. **Florida Worm Meeting,** Melbourne, FL, 2015.

23) Grant J., Matthewman C., Johnson C., Bianchi, L. "CLH-1 is a proton-activated anion channel that regulates amphid sheath glia pH through bicarbonate flux. **Florida Worm Meeting,** Melbourne, FL, 2015 (abstract selected for platform presentation).

21. Other works: none

V. PROFESSIONAL

22. Funded research

Current:

National Institutes of Health Grant **R01 NS105616** (6/2018-5/2023)
" Glial ion channels in glia/neurons interaction."
Laura Bianchi, PI
Direct cost: $1,278,490.98; Indirect cost: $683,992.67; Total cost: $1,962,483.65. 50% effort.
This research project investigates the role of Cl- channels of the ClC family expressed in glia in regulating intracellular pH and Cl^- homeostasis in *C. elegans*.

National Institutes of Health Grant **R01 NS106951** (4/2018-3/2023)
"Molecular Genetics of Synaptic Plasticity"
Laura Bianchi, co-PI
David M. Miller, PI, Vanderbilt University
Janet E. Richmond, co-PI, University of Illinois at Chicago
Direct cost: $230,000; Indirect cost: $ 123,000; Total cost: $354,000. 10% effort.
This project aims at understanding the role of Na^+ channels of the DEG/ENaC family in synaptic remodeling during development.

*University of Miami **SAC pilot project award*, UM SAC 2021-24R1** (6/2021-5/2022)
"Glia in ageing"
Laura Bianchi, PI
Direct cost: $25,000
This pilot project will investigate the role of glial cells in organismal ageing using *C. elegans* as a model.

Completed:
University of Miami iRAPID award (6/1/2020-5/31/2021)
Stiped support of graduate student Bianca Graziano
This grant was awarded in support of Bianca Graziano who after 3 rotations had not found a suitable lab. My lab, which was Bianca's 4th rotation, was a good fit but funds from my grants were committed to other personnel until 2021.
$31,000

National Institutes of Health Grant **R01 NS081259** (6/2013-5/2017)
"Molelcular determinants of synaptic plasticity"
Laura Bianchi, co-PI
David M. Miller, PI, Vanderbilt University
Janet E. Richmond, co-PI, University of Illinois at Chicago
Direct cost: $148,000; Indirect cost: $ 80,000; Total cost: $228,000. 8% effort.
This projects aimed at understanding the role of Na^+ channels of the DEG/ENaC family in synaptic remodeling during development.

UM Dean's NIH Bridge Award **UM DBA 2018-3** (1/2018-12/2018)
" Glial ion channels in glia/neurons interaction."
Laura Bianchi, PI
Direct cost: $ 37,500.
This research project investigated the role of Cl^- channels of the ClC family expressed in glia in regulating intracellular pH and Cl^- homeostasis in *C. elegans*.

University of Miami IAC emergency equipment **UM EEA 2018-9** (4/2018-9/2018)
"Cell culture hood"
Peter Hans Larsson, PI
Laura Bianchi, co-PI
Rene Barro, co-PI
Direct cost: $4,000
These funds were used to purchase a new cell culture hood.

National Institutes of Health Grant **R01 NS070969** (2/2011-1/2016)
"Glia in Touch Sensation"
Laura Bianchi, PI
Direct cost: $1,093,750; Indirect cost: $605,777; Total cost: $1,657,440. 50% effort.
Score 10, percentile 1.0
This research project investigated the role of sodium channels of the DEG/ENaC family expressed in glia associated with touch neurons in regulating touch neurons excitability in *C. elegans*.

University of Miami IAC emergency equipment **UM EEA 2018-6** (1/2018-6/2018)
"Functional imaging of sensory cells in *C. elegans* and mouse."

Laura Bianchi, PI
Stephen Roper, co-PI
Direct cost: $3,725
These funds were used to purchase computers for data acquisition and analysis for an imaging station that we refurbished.

University of Miami ***SAC pilot project award*****, UM SAC 2016-20R1** (3/2016-3/2017)
"Glial channels and transporters in nervous system function and behavior"
Laura Bianchi, PI
Direct cost: $25,000
This was a pilot project to use behavior and imaging tools to determine the role of membrane channels and transporters identified by RNA sequencing in the function of the nervous system.

University of Miami ***SAC pilot project award*****, UM SAC 2014-3R2** (2/2014-1/2015)
"Role of sirtuins in neurodegeneration"
Laura Bianchi, PI
Direct cost: $20,000
This was a pilot project to develop a model in *C. elegans* to study the role of protein deacetylases sirtuins in the process of pathological neuronal death.

National Institutes of Health Grant **S10 OD012006** (6/2013-6/2014)
"Union Biometrica BIOSORTER PRO large particle flow cytometer"
Charles F. Bear, PI
Laura Bianchi, major user
Rebecca Butcher, major user
Keith Choe, major user
Arthur Edison, major user
$ 600,000
This grant supported the purchase of a worm sorter, an instrument that sorts *C. elegans* based on their size and expression of fluorescent proteins.

American Cancer Society **RGS-09-043-01-DDC** (1/2009-12/2012, 12/2012-12/2013 no cost extension)
"Molecular dissection of pain signals in *C. elegans*"
Laura Bianchi, PI,
Direct cost: $596,463; Indirect cost: $109,492; Total cost: $ 705,955
Ranking: outstanding
This project aimed at deciphering the role of glial and neuronal channels sensitive to acidic pH in mediating *C. elegans* avoidance of acidic environments, a behavior that models pain sensation in mammals.

National Institutes of Health Grant **R21 NS049511** (7/2004-7/2006)
"Mechanosensitive channels in sensory perception in *C. elegans*"
Laura Bianchi, PI
Direct cost: $150,000; Indirect cost: $83,250; Total cost: $ 233,250
This project was aimed at dissecting the specific roles of DEG/ENaC and Trp ion channels in sensory behaviors mediated by two different types of touch neurons in *C. elegans*.

23. Editorial responsibility:

2021	Guest Editor of special issue, Frontiers in Neuroscience
2020	Guest Editor of special issue, International Journal of Molecular Sciences

2019-present Review Editor, Frontiers in Molecular Neuroscience
2017 Guest Editor, Plos Genetics

24. Professional and honorary Organizations:

2012-present Member for Society for Neuroscience
2000-present Member of Biophysical Society
2014 Member of Genetics Society of America

25. Honors and awards

U-Choose SEEDS award (2019)
"Exposing trainees to early career successful women scientist"
$2,500 in funds to invite a woman scientist for a seminar and a mentoring event.
Laura Bianchi, PI

U-Choose SEEDS award (2010)
"Biophysics, a male-dominated scientific discipline: a woman's perspective"
$2,500 in funds to invite 3 established women in Physiology/Biophysics for seminars and mentoring events.
Laura Bianchi, PI

FASI Award (Faculty Academic Service Increment) in recognition of the quality of service to the University - 2004 and 2005.

26. Postdoctoral fellowships awarded:
National Kidney Foundation Fellowship Grant, 1999-2001.
American Heart Association Fellowship Grant, 1998-2000.

27. Other professional activities:

Grant reviewer:

- NIH Neurotransporters, Receptors and Ca^{2+} signaling, 2009, 2017, and 2018-present.
- NIH Sensory and Motor Neuroscience Cognition and Perception Fellowship Study Section F02B, 2014-2018.
- The German Israeli Foundation for Scientific Research and Development, 2017.
- Deutsche Forschungsgemeinschaft (DFG), 2015.
- NIH ZRG1 MDCN Ion channels, 2014.
- The Children Tumor Foundation, the Young Investigator Award (YIA), 2013-present.
- NIH Somatosensory and Chemosensory Systems Study Section, 2012.
- NSF, 2011.
- Swiss National Science Foundation, 2010.
- American Cancer Society, 2009-2010.
- NIH ZRG1 MDCN Ion channels, 2009.
- NIH Biophysics of Neuronal Systems study section, 2008.

Reviewer and editor for the following journals:
2022, Cell Reports
2021, eLife, G3, Journal of General Physiology, Frontiers

2020, Plos One, eLife, Neuron, Neurogenetics, Journal of Neurophysiology
2019, Neuron, eLife, Journal of General Physiology, American Journal of Physiology
2018, Cell Reports, J. of Gen. Physiology
2017, Nature, J. of Neuroscience
2016, Current Drug Therapy, Journal of Neuroscience
2015, Gene, Genes Genome Genetics
2014, American Journal of Cell Physiology
2013, Plos Genetics, Journal of Physiology
2012, Journal of Neuroscience
2011, Journal of Molecular Biology, The book "*Caenorhabditis elegans*: Modern Biological Analysis of an Organism"
2010, Biochemistry
2009, Biochimica et Biophysica Acta (BBA) Biomembranes, BioMedical Center (BMC) Structural Biology, Biophysical Journal, Journal of Biological Chemistry, European Molecular Biology Organization (EMBO) Journal, Current Biology
2008 Journal of Neurophysiology, Journal of Structural Biology, Nature Neuroscience

Served on scientific meeting committees:

- Reviewer, Society for Neuroscience Trainee Professional Development Award, 2020.
- Session chair and abstract selection committee, *C. elegans* meeting - 2012, 2009 and 2008.
- Invited speaker and session chair at FASEB Summer Research Conference - Ion Channel Regulation, - 2011.

Speaking invitations outside the University of Miami:

1. Brain Institute, **FAU**, December, 2021.
2. Dept. Biology, **State University of New York-Albany**, September, 2020.
3. **Force gated channels, physiology, regulation and function,** Berlin, Germany, October 2018.
4. **International Transmembrane Transporter Society,** Vienna, Austria, September, 2018.
5. Center for Molecular Biology and Biotechnology, **Florida Atlantic University**, October 2017.
6. **FASEB Summer Research Conference**, **Ion Channel Regulation,** July, 2017.
7. **Scripps Florida**, February, 2014.
8. **West Palm Beach American Cancer Society Laureate society**, December, 2013.
9. Hosted lunch meeting, **Miami American Cancer Society Laureate society**, May, 2013.
10. **American Cancer Society Laureate society dinner**, Jacksonville, FL, November, 2012.
11. Dept. Neurobiology, **University of Alabama at Birmingham**, October, 2012.
12. Dept. General Physiology and Biochemistry, **University of Milan (Italy)**, April, 2012.
13. Dept. Pharmacology, **City University of New York**, March, 2012.
14. Dept. Molecular Biology and Biochemistry, **Rutgers University**, March. 2012.
15. **International *C. elegans* meeting**, Los Angeles, CA, 2011.
16. **FASEB Summer Research Conference**, **Ion Channel Regulation,** 2011.
17. Dept. Medicine, **Vanderbilt University**, Nashville, 2009.
18. **International *C. elegans* meeting**, Los Angeles, CA, 2009.
19. **C. elegans Neuro-meeting,** Madison, WI, 2008.

20. Dept. Biology, **City University of New York**, NY, 2006.
21. Dept. Pharmacology and Toxicology, **University of Utah**, UT, 2006.
22. Dept. Basic Medical Sciences, **University of Arizona**, Phoenix, AZ, 2006.
23. Dept. Physiology, **Emory University,** Atlanta, GA, 2006.
24. Dept. Anatomy and Cell Biology, **State University of New York** Downstate, Brooklyn, NY, 2006.
25. Dept. Physiology, **Loyola University,** Chicago, IL, 2006.
26. Dept. Anatomy and Neurobiology, **Washington University,** St. Louis, MO, 2005.
27. Dept. Molecular Pharmacology, **Albert Einstein College of Medicine,** Bronx, NY, 2005.
28. Center for Membrane Biology, **University of Texas**, Houston, TX, 2005.
29. Dept. Pharmacology & Biological Chemistry, **Mount Sinai**, New York, NY, 2005.
30. Dept. Pharmacology, **Vanderbilt University**, Nashville, TN, 2005.
31. Dept. Biochemistry and Molecular Biology, **Philadelphia College of Osteopathic Medicine**, Philadelphia, 2005.
32. Dept. Neuroscience, **New York Institute of Technology**, Old Westbury, NY, 2005.
33. Dept. Cellular and Molecular Pharmacology, Chicago Medical School, **Rosalind Franklin University of Medicine and Science**, North Chicago, 2005.
34. Dept. Physiology and Pharmacology, **University of Medicine and Dentistry New Jersey,** Newark, NJ, 2005.
35. Dept. Biochemistry & Molecular Pharmacology, **Thomas Jefferson University**, Philadelphia, PA, March, 2005.
36. Dept. Cell Biology and Molecular Medicine, **University of Medicine and Dentistry New Jersey**, Newark, NJ, 2005.
37. **American Society for Cell Biology,** Washington, DC, 2004.
38. **Ion Channels in Drug Discovery and Development Conference**, Philadelphia, 2004.
39. **West Coast Worm Meeting**, Santa Barbara, CA, 2004.
40. **East Coast Worm Meeting**, Yale University, CT, 2004.
41. **West Coast Worm Meeting**, San Diego, CA, 2002.
42. **East Coast Worm Meeting**, University of New Hampshire, Durham, NH, 2002.
43. **Society for Neuroscience Meeting**, San Diego, CA, 1995.

VI. TEACHING

28. Teaching awards received: Neuroscience teaching award, 2020.

29. Teaching Specialization (courses taught)

Neuroscience, Biophysics, Physiology, and Model organisms.

Courses taught at the University of Miami:

Medical student teaching:

Longitudinal Discipline Co-Director for Physiology, NextGen MD curriculum, 2022-present.

Physiology section of Cellular Function and Regulation Course (traditional curriculum):

- Recorded 4 videos for the NextGen curriculum.

- Co-course coordinator (with Dr. Ellen Barrett) in charge of small group conferences and scientific literature section, 2014-2020. (This was a 4 weeks course).

- 2 x 1 hr lectures on Synaptic Chemistry, 2008-2020.

- Led 4 small group conferences (2 hr each) reviewing assigned questions on all topics,
- 2007-2020.

Neuroscience Module (MD/MPH Curriculum): 1 hr (2 hr since 2016) lecture on Synaptic Chemistry, 2012-2020.

Respiratory Module (traditional curriculum):
- Led 2 small group conferences reviewing assigned questions on basic science topics (3 hr each), 2008-2021.

- Led rotation on Anatomical and Physiological Dead Space in Pulmonary Function Lab (8 x 45 min), involving measurements and calculations, 2008-2021.

Respiratory Module (MD/MPH Curriculum):
- Led 2 small group conferences reviewing assigned questions on basic science topics (2 hr each), 2017-present.

- Led rotation on Anatomical and Physiological Dead Space in Pulmonary Function Lab (4 x 45 min), involving measurements and calculations, 2013-present.

Master Students teaching:

- 1 hr introductory lecture, 2019-present.

- Led 4 small group conferences (2 hr each) reviewing assigned questions on all topics, 2019-present.

Graduate student teaching:

Course coordinator:

- “Seminars and Journal Clubs” NEU700, 2018-present.

Lectures:

- “Methods to study membrane proteins, II”, Program in Biomedical Sciences 601, 2012-present.

- Led small group conference reviewing original literature (1 hour), Cellular Pharmacology program (MCP) 605, 2010-2011, 2013.

- "*C. elegans* as a model system of human disease and drug development", Molecular and Cellular Pharmacology program (MCP) 605, 2010-2011. (Course cancelled in 2012).

- Led 3 small group conferences reviewing original literature (1 hr each), Program in Biomedical Sciences 602, 2009-present.

- Led Neuroscience Journal Clubs (4 to 5, 1 hr each), 2008-2011

- "Model organisms: *C. elegans* and *Drosophila*", Program in Biomedical Sciences 601 and 701, 2007-present.

- Led small group lab demonstrations (8 hr) introducing *C. elegans* as a model organism, Interdisciplinary Program in Biomedical Sciences (IBS) 601, "Neuroscience techniques", 2007-2008.

- “Electrophysiological techniques” PHS 741 (1 hour lecture and 1 hour discussion), 2016-2017.

- “Excitation and secretion coupling, and Ca^{2+} signaling” PHS 741 (1 hour lecture and 1 hour discussion), 2017-present.

- “Membrane structure and function: lipids and proteins” PHS 741 (1 hour lecture and 1 hour discussion), 2018-present.

Summer Scholar Program:

- Neu100 (45 hours, 3 hours lecture/day), 2019-2021.

Teaching related activities:

- Participated to teaching in Cellular and Molecular Neuroscience (currently named NEU 761).

- Led a workshop on grant writing for graduate students, 2020-present.

- Guest panelist in Dr. Mary Lou King workshop on grant writing for students and postdocs, 2017-present.

- Co-conducted with Dr. Mary Lou King a workshop on grant writing for students and postdocs, April and May, 2014.

- Organized a workshop for postdocs on how to start a lab, 2012.

- Participated in the Neuroscience open house, 2011-present.

- Led Neuroscience Guest Speaker Symposium, April, 2011 (Dr. M. Caterina).

- Led and co-organized Physiology and Biophysics Dept. open house, 2010-present.

- Neuroscience retreat (2006-present), Invited speaker in 2007, 2011.

- Co-coordinated a grant-writing course for students and postdocs, 2007.

Courses taught at Rutgers University:

Graduate teaching:
- Organized weekly meetings to discuss chapters in "Ion channels of excitable membranes" by Bertil Hille: Rutgers University in 2003, Vanderbilt University in 2000.

Student supervision:
- Supervised 2 undergraduate students during lab rotation and preparation of honor Henry Rutgers thesis (Lyudmila Kotlyanskaya, 2005-2006, Plinio Silva, 2003-2004).

30. Thesis and Dissertation Advising/Post-doctoral student supervision

Supervision:

Postdoctoral students:
1. Eric Lei Wang, University of Miami, 2018-present.
2. Jesus Fernandez Abascal, University of Miami, 2018-present.
3. Massimo D'Amico, University of Bologna, Italy, 2017.
4. Rachele Sangaletti, University of Miami, 2012-2017.
5. Jeff Grant, University of Miami, 2011-2016.
6. Ying Wang, University of Miami, 2007-2013.

Doctoral students:
1. Bianca Graziano, Thesis title *"Role of glial KCNQ K^+ channels in neuronal function and behavior".* University of Miami, Neuroscience Graduate Program, 2020-present.
2. Christina Johnson, Thesis title "*Glial regulators of ionic homeostasis shape neuronal output in C. elegans* " University of Miami, Physiology and Biophysics Graduate Program, 2015-present.
3. Massimo D'Amico, Thesis title "Targeting Nrf2 Pathway for Neuroprotection and Reduction Levodopa-Induced Toxicity in Parkinson's Disease" exchange graduate student from the University of Bologna, Italy, 2105-2016.
4. Valeria Rossetti, Thesis title "*Short- and long- term effects of cigarette Smoke Exposure on Glutathione homeostasis in Human Bronchial Epithelial cells*", exchange graduate student from the University of Milan, Italy, 2014.
5. Yunji Choi, Preliminary Thesis title: "*Glia in the function of the nervous system*". University of Miami, Physiology and Biophysics Graduate Program, 2013.
6. Cristina Matthewman, Thesis title: "*Functional Features of DEG/ENaC channel UNC-8 involved in neuronal death*". University of Miami, Neuroscience Graduate Program, 2012-2016.
7. Rachele Sangaletti, Thesis title "*A new isoform of PEPT1 (sbPEPT1) and ion channels in touch sensation: Biophysical and Electrophysiological characterization*", exchange graduate student from the University of Insubria, Italy. University of Miami, May-November 2010 and May-November 2011.
8. Lu Han, Thesis title: "*Role of DEG/ENaC channels expressed in glia in C. elegans touch sensitivity*". University of Miami, Physiology Graduate Program, 2008-2012.

Undergraduate students:
1. Jeremy Ruan, 2022.
2. Daryn H. Kaplan, 2022.
3. Ibna Shahalam, 2021.
4. Feha Shahalam, 2021.
5. Ariel Hus, 2021.

6. Kailyn Hayes, 2021.
7. Andrea Alexandra Medina 2019-2020
8. Nicole Encalada, 2018.
9. Katherine Ferra Pradas, 2018.
10. Stephanie E. Filoramo, 2018.
11. Kristen Hernandez, New York Institute of Technology at Arkansas State University, 2018.
12. Noah Kraus, University of Miami, 2017-2018.
13. Jordan Lane Gallant, 2017-2018.
14. Chidera Onyekachi Nwosu, University of Miami, 2017.
15. Victoria Ann Vega, University of Miami, 2017.
16. Jennifer Swindlehurst Chan, University of Miami, 2017.
17. Samantha Marie Isern, University of Florida, 2017.
18. Selena Castro, Williams College, 2016.
19. Diana Cristina Lopez, University of North Carolina, 2015.
20. Khrystel Bernard, University of Miami, 2015.
21. Priyansh Patel, University of Miami, 2014-2015.
22. Emma Torncello, University of Miami, 2014.
23. Maanasa Jayachandran, University of Miami, 2010.
24. Sophia Hassor, University of Miami, 2009-2010.
25. Sarah Shafi, University of Miami, 2008.
26. Lyudmila Kotlyanskaya, Rutgers University, 2005-2006.
27. Plinio Silva, Rutgers University, 2003-2004.

Rotation students:

1. Bianca Graziano, PIBS, 2020.
2. Andy Hinojo-Perez, PIBS, 2019.
3. Mary Tapia, PIBS, 2019.
4. Ariana Jose, PIBS, 2019.
5. Jack Stahl, PIBS, 2019.
6. Linda Estefania Robayo Riofrio, PIBS, 2018.
7. Sarah Gough, PIBS, 2018.
8. Federica Maddalena Raciti, Physiology and Biophysics, 2017.
9. Cristina Johnson, Physiology and Biophysics, 2015.
10. Alina Ionescu, PIBS, 2014.
11. Bhavia Ravi, PIBS, 2014.
12. Yunji Choi, University of Miami, PIBS, 2013.
13. Genea Edwards, PIBS, 2012.
14. Cristina Matthewman, University of Miami, PIBS, 2011.
15. Julia Escandon, University of Miami, PIBS, 2011.
16. Sharon Lines, University of Miami, PIBS, 2010.
17. Lu Han, University of Miami, Physiology Graduate Program, 2008.
18. Alicia Pickrell, University of Miami, Neuroscience Program, 2008.
19. Mingji Jin, University of Miami, Physiology Graduate Program, 2007.
20. Betty Ghetea-Brener, University of Miami, Physiology Graduate Program, 2007.

Other lab supervisions:

1. Nijah Nichelle Smith, MIBS student, 2021.
2. Iris Amaya Gonzales, MIBS student, 2021.
3. Soji Adimula, MIBS student, 2020.
4. Gabi Grant, HHMI high school scholar, 2019.

5. Camila Moreno, HHMI high school scholar, 2019.
6. Dario D'urso, high school student, 2018.
7. Christian Caballero, HHMI high school scholar, 2018.
8. Jiyansh Agarwal, HHMI high school scholar, 2018.
9. Lauren Podkowirow, University of Miami, MD student, 2010.
10. Giulia D'Urso, University of Miami, Research Associate, 2009-2011.
11. Kevin Tomecsek, University of Miami, MD student, 2009.
12. Karishma Habbu, high school student, 2008.

Appointments to Ph.D. committees:

1. Thesis committee chair, "Understanding how heterotrimeric G proteins modulate ion channels and serotonin signaling in *C. elegans*" Ariana Jose, Physiology and Biophysics Graduate Program, 2021-present.
2. Thesis committee member, "Identifying the Molecular Determinants of pH-sensing GPCRs" Jacob Rowe, University of Miami, Molecular and Cellular Pharmacology Graduate Program, 2020-present.
3. Thesis committee member, "Characterization of a novel, glial-expressed metallo β-Lactamase domain containing enzyme that supports mitochondrial mechanisms involved in glutamate signaling-dependent control of dopamine signaling in *Caenorhabditis elegans*" Peter Rodriguez, Florida Atlantic University, Integrative Biology Graduate Program, 2018-present.
4. Thesis committee member, "Adaptation to Extracellular Acidosis by pH-Dependent eIF5A" Nathan Balukoff, University of Miami, Cancer Biology Graduate Program, 2019-2020.
5. Thesis committee member*, "Role of Gαq signaling system in the egg-laying circuit activity and behavior of Caenorhabditis elegans"* Pravat Dhakal, University of Miami, Biology Graduate Program, 2018-present.
6. Thesis committee member, *thesis title not available yet,* Emmanuel Medrano, University of Miami, Biology Graduate Program, 2018-present.
7. Thesis committee chair, Title: *"Investigating novel compounds in the treatment of cardiac arrhythmia"*, Brianna Watkins, University of Miami, Physiology and Biophysics Graduate Program, 2017-2019.
8. Thesis committee chair, Title: "*Formation and regulation of activity patterns in the C. elegans egg-laying behavior circuit*", Bhavya Ravi, University of Miami, Neuroscience Graduate Program, 2016-2019.
9. Thesis committee member, Title: *"Structural optimization and behavioral analysis of antagonists of the insect odorant receptor co-receptor subunit"*, Devin Kepchia, University of Miami, Molecular and Cellular Pharmacology Graduate Program, 2015-2017.
10. Thesis committee member, Title: *"MicroRNAs Regulate the Neuroprotective Efficacy of NMNAT"*, Joun Park, University of Miami, Neuroscience Graduate Program, 2015-2020.
11. Thesis committee chair, Title: "*Inhibition of Pannexin 1 as a potential therapy for secondary cell death in SCI*", David George Jackson, University of Miami, Physiology and Biophysics Graduate Program, 2013-2015.
12. Thesis committee chair, Title: "*Exploring the coding mechanism of the geniculate ganglion by multi-neuronal calcium imaging technique*", An Wu, University of Miami, Neuroscience Graduate Program, 2013-2016.
13. Thesis committee member, Title: "*Intrinsic and extrinsic regulation of electrophysiological development in retinal ganglion cells*", Praseeda Venugopalan, University of Miami, Neuroscience Graduate Program, 2011-2016.

Neuroscience steering committee member at qualifier exams:

1. Maureen Ascona, 2021.
2. Stephen Tapanes, 2018.
3. Elena Buglo, 2016.
4. Stephanie Yahn, 2015.
5. Michelle Rudman (Trojanowsky), 2015.
6. Jennifer Roebber, 2015.
7. Eric Bray, 2015.
8. Amber Hackett, 2014.
9. Yuan Liu, 2014.
10. Han Gao, 2013.
11. Emmanuel Perez Martinez, 2013.
12. Uzoezi Ozomaro, 2008.
13. Yunjiao Zhu, 2012.

VII. SERVICE

31. University Committee and Administrative Responsibilities

Departmental:

2021-present	Dean's Diversity committee representative for Physiology and Biophysics.
2012-present	Member of Graduate Studies Committee, Department of Physiology and Biophysics.
2007-2008	Member of Faculty Search Committee, Department of Physiology and Biophysics.
2006-present	Invited and hosted 6 outside speakers.

School:

2021-present	Member, Withdrawal Appeal Committee
2020-present	Member, Research Council, Committee for Diversity in Research and Scholarship.
2020-present	Alternate member, Graduate Council.
2016-2019	Member of the Conflict of Interest Committee.
2014-present	Chair, Neuroscience Curriculum committee.
2013-2016	Member, Graduate Program in Biomedical Science (PIBS) Admission committee.
2011-present	Member, Neuroscience Steering Committee.
2010	Mentor at a postdoctoral fellows mentoring event organized by SEEDS.
2009-present	Member, Neuroscience Curriculum Committee. Chair since 2014.
2008	Member, Neuroscience Center seminar speaker selection committee.
2007	Member, Unified Admission Committee: researched and evaluated the pros and cons of a unified admission and unified core courses for the graduate program in biomedical sciences.

Diversity, equity and inclusion service and training:

12-8-2021	NIH SWDSS: Achieving Equity in Faculty--Pros and Cons of Cohort Recruitment.
11-10-2021	The Groundwater Approach: building a practical understanding of structural racism. Facilitated by the Racial Equity Institute.
11-9-2021	Building Diverse and Inclusive Relationships (Interactive Theater).
9-20-2021	NIH Bias Awareness Training for CSR reviewers.

2021 Bystander Intervention Faculty Workshop.
2021-present Chair of the Diversity Committee, Graduate Program in Cellular Physiology and Molecular Biophysics.
2021-present Dean's Diversity committee, representative for Physiology and Biophysics.
2020-present Member, Research Council, Committee for Diversity in Research and Scholarship.

32. Community Activities:

2006-present Interviewer for PIBS and MPS applicants.
2013-present Poster judge at the University of Miami Annual Neuroscience Research day.
2015-2017 Poster judge Florida Worm meeting.
2011-2013 Poster judge at the International and Neuro *C. elegans* meeting.
2012-present Poster judge Annual Postdoctoral Fellows Research Day.
2010-present Poster judge Eastern Atlantic Student Research Forum (ESRF).
2009 Poster judge at University of Miami Undergraduate Research symposium.