

Curriculum Vitae

Franck Polleux, Ph.D.

Professor
Columbia University
Department of Neuroscience
Mortimer B. Zuckerman Mind Brain Behavior Institute
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Google Scholar Profile:

https://scholar.google.com/citations?user=0_qH2XAAAAAJ&hl=en&oi=ao

A- Education

September 1992 to May 1997

Ph.D. in Neuroscience

Université Claude Bernard - Lyon (France)
Thesis Director: Henry KENNEDY, Ph.D.

June 1992

Bachelor's Degree in Cellular Biology and Physiology

Claude Bernard University-Lyon (France)

Professional Experiences

Sept. 2019 to March 2022

Visiting Professor

KU Leuven, Belgium
VIB Center for Brain & Disease Research

November 2013 to present

Professor

Columbia University
Department of Neuroscience
Mortimer B. Zuckerman Mind Brain Behavior Institute
Kavli Institute for Brain Science

July 2010 to October 2013

Professor

The Scripps Research Institute- La Jolla, CA
Dorris Neuroscience Center

July 2008 to June 2010

Associate Professor

University of North Carolina at Chapel Hill
Neuroscience Center – Department of Pharmacology

October 2002 to July 2008

Assistant Professor

University of North Carolina at Chapel Hill
Neuroscience Center – Department of Pharmacology

April 2000 to September 2002

Research Investigator

INSERM (French National Institute of Health) U371 - FRANCE

June 1997 to April 2000

Post-doctoral scholar

Laboratory of Anirvan GHOSH - Ph.D.
Johns Hopkins University – School of Medicine -Baltimore, MD (USA)

Honors and Awards

1993-1997 Graduate Training Award from the French Ministry of Research and Technology

- 1999 Albert L. Lehninger Research Prize for Post-doctoral Research - Johns Hopkins University
- 2004-2007 March of Dimes Birth Defect Foundation Award
- 2005-2009 Pew Scholar Award in Biomedical Sciences
- 2005-2007 NARSAD Young Investigator Award
- 2007-2009 NARSAD Young Investigator Award
- 2008-2012 Permanent member on NIH Study Section Neuronal Differentiation, Plasticity and Regeneration (NDPR)
- 2009-present Member of Faculty 1000 – Developmental Neurobiology Section
- 2010-2012 Co-Chair (2010) and Chair (2012) Gordon Research Conference, *Neural Development* - Salve Regina, RI
<https://www.grc.org/neural-development-conference/2012/>
- 2012-2015 Member of the Board of Reviewing Editors of *eLife*
- 2012-present Member of the Editorial Board of *PLoS Biology*
- 2015 Recipient of the 2015 Prize from the Fondation Roger de Spoelberch in Neuroscience (\$750,000)
Scientific award for mid-career neuroscientists
<http://www.fondation-roger-de-spoelberch.ch/en/roger-de-spoelberch-prize/>
- 2020 Co-recipient of a Nomis Foundation Research Award with Dr Jim Noonan (Yale University)
'Deciphering The Origins of Human Brain Uniqueness'
- 2021 Recipient of the R35 NINDS Research Program Award (career award)

B- Bibliography

90 articles published

Total number of citations: 11,925 according to Google Scholar (March 20, 2023)

h-index: 51; i10-index: 78

Research Articles

In revision/submitted/in press

Libé-Philippot, B., Iwata, R., Recupero, A.J., Wierda, K., Ditkowska, M., Gaspariunaite, V., Vermaercke, B., Peze-Heidsieck, E., Remans, D., Charrier, C., Polleux F., and Vanderhaeghen P. (2023). Human synaptic neoteny requires species-specific balancing of SRGAP2-SYNGAP1 cross-inhibition. Submitted.

Posted on bioRxiv <https://www.biorxiv.org/content/10.1101/2023.03.01.530630v1>

Published

- 1- Pilaz, L.J., Liu, J., Joshi, K., Tsunekawa, Y., Musso, C.M., D'Arcy, B.R., Suzuki, I.K., Alsina, F.C., Kc, P., Sethi, S., Vanderhaeghen P., Polleux F. and Silver D.L. (2023). Subcellular mRNA localization and local translation of Arhgap11a in radial glial progenitors regulates cortical development. *Neuron* 111, 839-856.
- 2- Lee, A. Kondapalli, C., Virga D.M., Lewis T.L., Koo S-Y., Ashok A., Mairet-Coello G., Herzig, S. Shaw R. Sproul A. and Polleux F. (2022) Aβ42 oligomers trigger synaptic loss through AMPK-dependent activation of mitochondrial fission and mitophagy. *Nature Communications*. 13(1):4444.
- 3- Tilokani, L., Russell, F.M., Hamilton, S., Virga, D.M., Segawa, M., Paupe, V., Gruszczczyk, A.V., Protasoni, M., Tabara, L.C., Johnson, M., Anand H., Murphy, M. P., Hardie, D. G., Polleux, F., Prudent, J. (2022). AMPK-dependent phosphorylation of MTFR1L regulates mitochondrial morphology. *Sci Adv* 8, eabo7956. 10.1126/sciadv.abo7956.
- 4- O'Hare, J.K., Gonzalez, K.C., Herrlinger, S.A., Hirabayashi, Y., Hewitt, V.L., Blockus, H., Szoboszlay, M., Rolotti, S.V., Geiller, T.C., Negrean, A., Chelur, V., Polleux, F.*, and Losonczy, A.* (2022). Compartment-specific tuning of dendritic feature selectivity by intracellular Ca²⁺ release. *Science* 375, eabm1670. * Co-senior and co-corresponding authors.
- 5- Hewitt, V.L., Miller-Fleming, L., Twynning, M.J., Andrezza, S., Mattedi, F., Prudent, J., Polleux, F., Vagnoni, A., and Whitworth, A.J. (2022). Decreasing pdzd8-mediated mito-ER contacts improves organismal fitness and mitigates Abeta(42) toxicity. *Life Sci Alliance* 5. 10.26508/lsa.202201531.
- 6- Turner, N.L., Macrina, T., Bae, J.A., Yang, R., Wilson, A.M., Schneider-Mizell, C., Lee, K., Lu, R., Wu, J., Bodor, A.L., Bleckert, A.A., Brittain, D., Froudarakis, E., Dorkenwald, S., Collman, F., Kemnitz, N., Ih, D., Silversmith, W.M., Zung, J., Zlateski, A., Tartavull, I., Yu, S.-c., Popovych, S., Mu, S., Wong, W., Jordan, C.S., Castro, M., Buchanan, J., Bumbarger, D.J., Takeno, M., Torres, R., Mahalingam, G., Elabbady, L., Li, Y., Cobos, E., Zhou, P., Suckow, S., Becker, L., Paninski, L., Polleux, F., Reimer, J., Tolias, A.S., Reid, R.C., da Costa, N.M., and Seung, H.S. (2022). Reconstruction of neocortex:

- Organelles, compartments, cells, circuits and activity. *Cell* Feb 23;S0092-8671(22)00134-9. doi: 10.1016/j.cell.2022.01.023.
- 7- Rolotti, S.V., Ahmed, M.S., Szoboszlai, M., Geiller, T., Negrean, A., Blockus, H., Gonzalez, K.C., Sparks, F.T., Solis Canales, A.S., Tuttmann, A.L., Peterka, D.S., Zemelman, B.V., Polleux, F., and Losonczy, A. (2022). Local feedback inhibition tightly controls rapid formation of hippocampal place fields. *Neuron* 110, 783-794 e786.
- 8- Geiller T., Sadeh S., Rolotti S.V., Blockus H. Vancura B., Negrean A., Murray A.J., Rózsa B., Polleux F., Clopath C. and Losonczy A. (2021) Local circuit amplification of spatial selectivity in the hippocampus. *Nature* Dec. 1. 2021 Published online doi: 10.1038/s41586-021-04169-9.
- 9- Schmidt E.R.E, Zhao H.T., Park J.M., Dipoppa M., Monsalve-Mercado M.M., Dahan J.B., Rodgers C.C., Hillman E.M.C., Miller K.D., Bruno R.M. and Polleux F. (2021) A human-specific modifier of cortical connectivity and circuit function. *Nature*. 599(7886):640-644.
- 10- Blockus H., Rolotti S.V., Szoboszlai M., Ming, T., Schroeder A., Vennekens K., Katsamba P., Bahan F., Mannepalli S., Ahlsen G., Honig B., Shapiro L., de Wit J., Losonczy A. and Polleux F. (2021) Synaptogenic activity of the axon guidance molecule Robo2 is critical for hippocampal circuit function. *Cell Reports*. 37(3):109828.
- 11- Izadifar A*, Courchet, J* #, Virga D.M., Verreet T., Hamilton S., Ayaz D., Misbaer A., Vandenbogaerde S., Monteiro L., Petrovic M., Sachse S., Yan B., Erfurth M.-L., Dascenco D., Kise Y., Yan J., Edwards-Faret G., Lewis T.L. Jr, Polleux F. # and Schmucker D.# (2021) Axon morphogenesis and maintenance require an evolutionary conserved safeguard function of Wnk kinases antagonizing Sarm and Axed. *Neuron* Sep 15;109(18):2864-2883. * Co-first authors. # Co-corresponding authors. Preview by Peters O.M. and Smith G.A. *Neuron* (2021).
- 12- Zehnder T., Petrelli F., Romanos J., De Oliveira Figueiredo E.C., Lewis Jr T.L., Déglon N., Polleux F., Santello M. and Bezzi P. (2021) Astrocytic mitochondrial metabolism regulates astrocytes morphogenesis and supports synaptogenesis. *Cell Reports* 35(2):108952. PMID: 33852851.
- 13- Iascone D.M., Li Y., Sumbul U., Doron M., Chen H., Andreu V., Goudy F., Segev I., Peng H. and Polleux F. (2020) Whole-Neuron Synaptic Mapping Reveals Spatially Precise Excitatory/Inhibitory Balance Limiting Dendritic and Somatic Spiking. *Neuron*. 106(4):566-578. PMID: PMC7244395.
- 14- Shin B., Kupferman J., Schmidt E., Polleux F., Delany A.M., Lee S.K. (2020) Rac1 inhibition via SRGAP2 restrains inflammatory Osteoclastogenesis and limits the clastokine SLIT3. *J. Bone Miner. Res.* April; 35(4): 789-800.
- 15- Schmidt E.R.E., Kupferman J.V., Stackmann M., Polleux F. (2019) The human-specific paralogs SRGAP2 and SRGAP2C differentially modulate SRGAP2A-dependent synaptic development. *Scientific Rep.* 9(1):18692.
- 16- Martinez J.C., Randolph L.K., Iascone D.M., Pernice H.F., Polleux F., Hengst U. (2019) Pum2 shapes the transcriptome in developing axons through retention of target mRNA in the cell body. *Neuron* 104(5):931-946.
- 17- Ren, C., Yuan Q., Braun M., Zhang X., Petri B., Zhang J., Kim D., Guez-Haddad J., Xue W., Pan W., Fan R., Kubes P., Sun Z., Opatowsky Y., Polleux F., Karatekin E., Tang W., Wu D. (2019) Leukocyte Cytoskeleton Polarization Is Initiated by Plasma Membrane Curvature from Cell Attachment. *Dev Cell*. 49(2):206-219.
- 18- Lewis, T.L.* , Kwon SK.* , Lee A., Shaw and Polleux F. (2018) MFF-dependent mitochondrial fission regulates presynaptic release and axon branching by limiting axonal mitochondria size *Nature Comm.* 9:5008. * Co-first authors.
- 19- Courchet V., Roberts, A.J., Del Carmine, P. Lewis TL. Polleux F. * Courchet J. * (2018) Haploinsufficiency of autism candidate gene NUA1 impairs cortical development and behavior. *Nature Comm.* 9:4289. * co-corresponding authors
- 20- Hirabayashi Y., Tapia J.C., Polleux F. (2018) Correlated Light-Serial Scanning Electron Microscopy (CoLSSEM) for ultrastructural visualization of single neurons in vivo. *Scientific Reports* 8:14491.
- 21- Suzuki I.K., Gacquer, D., Van Heurck R., Kumar, D., Wojno M., Bilheu, A., Herpoel A., Cheron J., Polleux, F. Detours, V. Vanderhaeghen P. (2018) Hominin-specific NOTCH2 paralogs expand human cortical neurogenesis through regulation of Delta/Notch interactions. *Cell* 173(6):1370-1384.
- 22- Shi, F., Kawano, F., Park, S.E., Komazaki, S., Hirabayashi, Y., Polleux, F., and Yazawa, M. (2018). Optogenetic Control of Endoplasmic Reticulum-Mitochondria Tethering. *ACS Synth Biol* 7, 2-9.

- 23- Hirabayashi Y.* , Kwon S-K.* , Paek H., Pernice W.M., Paul M.A., Lee J., Erfani P., Raczowski A., Petrey D.S., Pon L. A. and Polleux F. (2017) ER-mitochondria tethering by PDZD8 regulates Ca²⁺ dynamics in mammalian neurons. **Science** 358(6363):623-630. * Co-first authors.
- Preview in the same issue of Science by Lombardi and Elrod. Mediating ER-mitochondrial cross-talk.*
- 24- Mountoufaris G., Chen W.V., Hirabayashi Y., O'Keeffe S., Chevee M., Nwakeze C.L., Polleux F., Maniatis T. (2017) Multiclust Pcdh diversity is required for mouse olfactory neural circuit assembly. **Science**. 356(6336):411-414.
- 25- Ebrahimi-Fakhari, D., Saffari, A., Wahlster, L., DiNardo, A., Turner, D., Lewis, T.L., Jr., Conrad, C., Rothberg, J.M., Lipton, J.O., Kolker, S., Hoffmann, G.F., Han, M.J., Polleux, F. and Sahin M. (2016). Impaired mitochondrial dynamics and mitophagy in neuronal models of Tuberous Sclerosis Complex. **Cell Reports** 17, 1053-1070.
- 26- Lewis, T. L., Jr., Turi, G. F., Kwon, S. K., Losonczy, A. and Polleux, F. (2016) Progressive Decrease of Mitochondrial Motility during Maturation of Cortical Axons In Vitro and In Vivo. **Curr Biol**. 26:2602-2608.
- 27- Fossati M, Pizzarelli R, Schmidt ER, Kupferman JV, Stroebel D, Polleux F*, Charrier C*. (2016) SRGAP2 and Its Human-Specific Paralog Co-Regulate the Development of Excitatory and Inhibitory Synapses. **Neuron**. 91(2):356-69. * Co-senior corresponding authors.
- 28- Kwon S.K., Sando R. 3rd, Lewis T.L, Hirabayashi Y, Maximov A, and Polleux F. (2016) LKB1 Regulates Mitochondria-Dependent Presynaptic Calcium Clearance and Neurotransmitter Release Properties at Excitatory Synapses along Cortical Axons. **PLoS Biol**. 14(7):e1002516. PMID: PMC4948842
- 29- Zheng, Y., Lewis, T. L., Jr., Igo, P., Polleux, F. & Chatterjee, A. Virus-Enabled Optimization and Delivery of the Genetic Machinery for Efficient Unnatural Amino Acid Mutagenesis in Mammalian Cells and Tissues. **ACS Synth Biol**. (2016).
- 30- Toyama E.Q., Herzig S., Courchet J., Lewis T.L. Jr., Losón O., Hellberg K., Young N.P., Chen H., Polleux F., Chan D.C., Shaw R.J. (2016) AMP-activated protein kinase mediates mitochondrial fission in response to energy stress. **Science** 350:275-281.
- 31- Shimojo M, Courchet J, Pieraut S, Torabi-Rander N, Sando R 3rd, Polleux F, Maximov A. (2015) SNAREs Controlling Vesicular Release of BDNF and Development of Callosal Axons. **Cell Reports** 11(7):1054-66.
- 32- Hsia HE, Takeda M, Courchet J, Goebbels S, An W, Eickholt B, Polleux F, Rotin D, Wu H, Nave KA, Rossner M, Brose N, Kawabe H. (2014) The Ubiquitin E3 Ligase Nedd4-1 acts as a downstream target of PI3K/PTEN-mTORC1 signaling to promote neurite outgrowth. **PNAS** 111(36):13205-10.
- 33- Courchet, J. *, Lewis T. Jr *, Lee S., Courchet, V., Liou, D-Y., Aizawa S and Polleux F. (2013) Terminal axon branching is regulated by LKB1-NUAK1 kinases via presynaptic mitochondrial capture. **Cell** 153:1510-1525. * Co-first authors.
- 34- Mairet-Coello G., Courchet J., Pierault S., Courchet, V., Maximov A., Polleux F. (2013) The CAMKK2-AMPK kinase pathway mediates the synaptotoxic effects of Aβ oligomers *in vivo* through Tau phosphorylation. **Neuron** 78:94-108.
- 35- Charrier C.* , Joshi K. *, Coutinho-Budd J., Kim, J-E., Lambert N., de Marchena, J., Jin W-L., Vanderhaeghen P., Ghosh A., Sassa T, and Polleux F. (2012) Inhibition of SRGAP2 function by its human-specific paralogs induces neoteny of spine maturation. **Cell** 149:923-935. * Co-first authors.
- 36- Coutinho-Budd J., Ghukasyan V., Zylka MJ., Polleux F. (2012) The F-BAR domains from srGAP1, srGAP2, and srGAP3 differentially regulate membrane deformation. **J Cell Sci**. 125:3390-401.
- 37- Tsunekawa Y. Britto J.M. Takahashi M. Polleux F., Tan SS. Osumi N. (2012) Cyclin D2 in the basal process of neural progenitors is linked to non-equivalent cell fates. **EMBO J**. 2012 Mar 6;31(8):1879-92. doi: 10.1038/emboj.2012.43.
- 38- Hand R, Polleux F. (2011) Neurogenin2 regulates the initial axon guidance of cortical pyramidal neurons projecting medially to the corpus callosum. **Neural Dev**. 2011 Aug 24;6:30.
- 39- Williams T. *, Courchet J. *, Viollet B. Brenman J.E. and Polleux F. (2011) AMPK kinase activity is not required for neuronal development but regulates axogenesis during metabolic stress. **Proc. Nat. Acad. Sci**. 108:5849-54. * Co-first authors.
- 40- Yi, J., Barnes A.P., Hand R., Polleux F. and Ehlers M.D. (2010) TGFβ Signaling Specifies Axons During Brain Development. **Cell** 142:144-157.

- 41- Guerrier, S. Coutinho-Budd J., Sassa T., Vincent-Jordan N., Frost A., Chen K, Jin WL, and Polleux F. (2009) The F-BAR domain of SRGAP2 induces membrane protrusions required for neuronal migration and morphogenesis. **Cell** 138:990-1004.
- 42- Bortone, D. and Polleux F. (2009) KCC2 expression promotes the termination of cortical interneuron migration in a voltage-sensitive calcium-dependent manner. **Neuron** 62:53-71. *Featured Article.*
- 43- Stanco, A., Kreidberg, J. A., Polleux, F. and Anton E.S. (2009) Netrin1- α 3 β 1 Integrin Interactions Regulate the Migration of GABAergic Interneurons Through the Cortical Marginal Zone. **Proc. Nat. Acad. Sci.** 106:7595-600.
- 44- Tucker, ES., Segall S., Gopalakrishna D., Wu Y., Vernon M., Polleux F. and LaMantia AS. (2008) Molecular specification and patterning of progenitor cells in the lateral and medial ganglionic eminences. **J. Neurosci.** 28:9504-18.
- 45- Powell A., Sassa T., Wu Y.Q., Tessier-Lavigne M., and Polleux F. (2008) Netrin-1 specifies the topography of thalamocortical projections in the ventral telencephalon through its attractive and repulsive activities. **PLoS Biology.** 6(5):e116.
- 46- Gates A. Demyanenko G.P., Powell A., Schachner M., Polleux F., Maness PF. (2008) CHL1 specifies the topography of thalamocortical projections. **J. Neurosci.** 27:13667-79.
- 47- Barnes A.P., Liley B., Pan, A. Plummer L, Powell A., Raines, A, Sanes J.R., Polleux F. (2007) LKB1 and SAD kinases define a pathway required for the polarization of cortical neurons. **Cell** 129 :549-563. *Preview by B. Winckler*
- 48- Tucker ES, Polleux F. and LaMantia AS. (2006) Position and time specify the migration of a pioneering population of olfactory bulb interneurons. **Dev. Biol.** 297:387-401.
- 49- Ferguson KL., McClellan KA., Vanderluit J., Nikolettoulou V., Schuurmans C., Polleux F. and Slack RS. (2005) A cell-autonomous requirement for the cell cycle regulatory protein, Rb, in neuronal migration. **EMBO J.** 24:4381-91.
- 50- Hand R*, Bortone D*, Mattar P, N'Guyen L, Heng JI-T, Guerrier S, Boutt E, Peters E, Barnes, AP, Parras C, Schuurmans C, Guillemot F and Polleux F. (2005) Phosphorylation of Neurogenin2 specifies the migration properties and the dendritic morphology of pyramidal neurons in the neocortex. **Neuron** 48:45-62. * *Co-first authors.*
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- 53- Dufour A., Seibt J., Passante L., Depaepe V., Ciossek T., Frisén J., Kullander J., Flanagan J.G., Polleux F. and Vanderhaeghen P. (2003) Area-Specificity and topography of thalamocortical projections controlled by ephrin/Eph genes. **Neuron** 39:453-465.
- 54- Seibt J., Schuurmans C., Gradwohl G., Dehay C., Vanderhaeghen P., Guillemot, F. and Polleux F. (2003) *Neurogenin2* specifies the connectivity of thalamic neurons by controlling axon responsiveness to intermediate target cues. **Neuron** 39:439-452. *Preview by Oscar Marin.*
- 55- Polleux F., Whitford K., Dijkhuizen P. and Ghosh A. (2002) Control of cortical interneuron migration by neurotrophins and PI3-Kinase signaling. **Development** 129:3147-3160.
- 56- Polleux F., Dehay C. and Kennedy H. (2001) Pre- and post-mitotic events contribute to the progressive acquisition of area-specific connectional fate in the neocortex. **Cerebral Cortex** 11:1027-1039.
- 57- Polleux F., Morrow T. and Ghosh A. (2000) Semaphorin 3A is a chemoattractant for cortical apical dendrites. **Nature** 404:567-573. (*Full Article +Cover +News & Views*)
- 58- Polleux F., Giger R.J., Ginty, D.D. Kolodkin A.L. and Ghosh A. (1998) Patterning of cortical efferent projections by semaphorin-neuropilin interactions. **Science** 282: 1904-1906.
- 59- Polleux F., Dehay C. and Kennedy H. (1998) Neurogenesis and commitment of corticospinal neurons in the *reeler* mutant mouse. **J. Neurosci.** 18: 9910-9923.

- 60- Polleux F., Dehay C., Moraillon B. and Kennedy H. (1997) Regulation of neuroblast cell-cycle kinetics plays a crucial role in the generation of unique features of neocortical areas. **J. Neurosci.** 17: 7763-7783.
- 61- Polleux F., Dehay C. and Kennedy H. (1997) The timetable of laminar neurogenesis contributes to the specification of cortical areas in mouse isocortex. **J. Comp. Neurol.** 385:95-116.

Reviews and Editorials

- 62- Vanderhaeghen, P. and Polleux F. (2023) Developmental mechanisms underlying the evolution of human cortical circuits. **Nat. Rev. Neurosci.** (Feb. 15, 2023) DOI: [10.1038/s41583-023-00675-z](https://doi.org/10.1038/s41583-023-00675-z)
- 63- Schmidt, E.R.E., and Polleux, F. (2021). Genetic Mechanisms Underlying the Evolution of Connectivity in the Human Cortex. **Front Neural Circuits** 15, 787164.
- 64- Blockus H. and Polleux F. Developmental mechanisms underlying circuit wiring: Novel insights and challenges ahead. (2021) **Curr Opin Neurobiol.** 66:205-211.
- 65- Blockus H. and Polleux F. Circuit Wiring: Neurite Speed Dating versus Stable Synaptic Matchmaking. **Dev Cell.** (2018) 45(4):423-424.
- 66- Lee A., Hirabayashi Y., Kwon S-K., Lewis T.L.Jr. and Polleux F. (2018) Emerging roles of mitochondria in synaptic transmission and neurodegeneration. **Curr. Opin. Physiology** 3:82-93.
- 67- Kupferman, J., and Polleux, F. (2016). Evolution: Genomic remodeling in the primate brain. **Nature** 539, 171-172.
- 68- Kwon, S. K., Hirabayashi, Y. & Polleux, F. (2016) Organelle-Specific Sensors for Monitoring Ca²⁺ Dynamics in Neurons. **Front Synaptic Neurosci** 8, 29, doi:10.3389/fnsyn.2016.00029.
- 69- Mairet-Coello G. and Polleux F. (2014) Involvement of 'stress-response' kinase pathways in Alzheimer's disease progression. **Curr. Opin. Neurobiol.** 27:110-117.
- 70- Lewis T.L. Jr, Courchet J. and Polleux F. (2013) Cell biology of Neuroscience: Cellular and Molecular mechanisms underlying axon formation, growth and branching. **J. Cell Biol.** 202:837-48.
- 71- [How human-specific SRGAP2 gene duplications control human brain development]. Charrier C, Polleux F. **Med Sci** (Paris). 2012 Nov;28(11):911-4.
- 72- Lewis TL Jr, Polleux F. (2012) Neuronal morphogenesis: Golgi outposts, acentrosomal microtubule nucleation, and dendritic branching. **Neuron** 76:862-4.
- 73- Charrier C, Polleux F. (2012) [How human-specific SRGAP2 gene duplications control human brain development] (French) **Medecine Sciences** (Paris). 28:911-4.
- 74- Gleeson JG, Polleux F. (Co-editors) (2012) Neurodevelopment and Disease. **Curr. Opin. Neurobiol.** 22:735-6. Editorial
- 75- Courchet J, Polleux F. (2012) Sonic Hedgehog, BOC, and Synaptic Development: New Players for an Old Game. **Neuron** 2012 73:1055-8.
- 76- Ehlers MD, Polleux F. (Co-editors) (2010) Neuronal and Glial Cell Biology. **Curr. Opin. Neurobiol.** 20:529-30.
- 77- Polleux F. and Snider W.D. (2010) Initiating and growing an axon. **Cold Spring Harb. Perspect. Biol.** 2010 2(4):a001925.
- 78- Barnes A.P., and Polleux F. (2009) Establishment of Axon-Dendrite Polarity in Developing Neurons. **Ann. Rev. Neurosci.** 32:347-81.
- 79- Barnes A.P., Solecki D. and Polleux F. (2008) New insights into the molecular mechanisms specifying neuronal polarity *in vivo*. **Current Opin. Neurobiol.** 18:44-52.
- 80- Guerrier S., and Polleux F. (2007) The ups and downs of neural progenitors: Cep120 and TACCs control interkinetic nuclear migration. **Neuron.** 56:1-3.40

- 81- Polleux F., Ince-Dunn G., Ghosh A. (2007) Transcriptional mechanisms specifying neuronal connectivity and synapse formation. **Nat. Rev. Neurosci.** 8:331-340.
- 82- Polleux F. (2005) Genetic mechanisms specifying cortical connectivity: let's make projections together. **Neuron** 46:395-400.
- 83- Polleux F. (2004) Generation of the cortical area map: *Emx2* strikes back. **Neuron** 43:295-297.
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- 85- Vanderhaeghen P. and Polleux F. (2004) Developmental mechanisms patterning thalamocortical projections: intrinsic, extrinsic and in between. **Trends Neurosci.** 27:384-391.
- 86- Polleux F. and Ghosh A. (2002) The slice overlay assay : a versatile tool for the study of the factors controlling neuronal differentiation. **Science STKE.** www.stke.org/cgi/content/full/sigtrans;2002/136/pl19
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- 88- Dickson B.J., Cline H., Polleux F. and Ghosh A. (2001) Making connections: a meeting on axon guidance and neural plasticity. **EMBO Reports** 2:182-186.

Book Chapters

- 1- Polleux F. and Ghosh A. Molecular determinants of dendritic morphology. **Dendrites.** Edited by Stuart G., Spruston N. and Häusser M. Oxford University Press- 2nd Ed. 550 pages; 53 figures; 26 b/w photos; 25 color figures; ISBN13: 978-0-19-856656-4.
- 2- Polleux F. and Anton E.S. Neuronal migration in the developing brain. (2005) –in **Developmental Neurobiology** Rao, Mahendra S. (Ed.) 4th ed., XII, 424 p.52. ISBN-13: 978-0306483301

Oral presentations

- 1- **Annual meeting of the Society for Neuroscience** Oral presentation, San Diego (USA) Oct. 1995
- 2- **Annual meeting of the Society for Neuroscience** Oral presentation, Miami (USA) Oct. 1999
- 3- **Max Planck Institute** – Munich-Martiensried, Germany – Invited by Dr Goetz, March 2001
- 4- Developmental mechanisms controlling cortical interneurons migration – **Novartis Friedrich Miescher Institute – Basel** (Switzerland) (2001) –Invited by Dr Yves-Alain Barde
- 5- **Univ. Pennsylvania**, Philadelphia- Department of Neuroscience (2002) - Invited by Dr Jonathan Raper.
- 6- **European Neuroscience Meeting (FENS)** Invited speaker - Paris (France) (2002)
- 7- **INMED Meeting Nature and Nurture in Neural Development-** Invited speaker, Meeting organized by Pr Y. Ben-Ari– La Ciotat, France (2002)
- 8- **Synaptic Development meeting**– Invited speaker- Meeting organized by Pr Pietro DeCamilli- Les Treilles, France. (2003)
- 9- **Univ. Calgary, Canada** – Department of Genetics – Invited by Dr Carol Schuurmans, Sept. 2003
- 10- **Harvard University** – Department of Neurobiology– Invited by Dr Bernardo Sabatini. March 2004
- 11- **Cold Spring Harbor Meeting** on Axon guidance and Neural Plasticity. Invited speaker -Sept. 2004
- 12- Chair, organizer and speaker at the symposium at the **Society For Neuroscience Annual Meeting** in San Diego (Oct.21-25 2004) – *New Insights into the Cellular and Molecular Mechanisms Patterning Cortical Connectivity.*
- 13- Genetic specification of the dendritic morphology of pyramidal neurons in the neocortex. **Yale University** – Department of Neurobiology (Nov. 2004) – Invited by Dr Pasko Rakic.
- 14- **McGill University- Quebec, Canada** Montreal Neurological Institute and Hospital– invited by Dr J-F. Cloutier. March 15 2005
- 15- **Johns Hopkins University** Department of Neuroscience –Invited by Dr A. Kolodkin. May 18 2005
- 16- **Santorini -Greece** Cortical Development – Meeting organized by Drs J. Parnavelas and A. Kriegstein - May 12th-15th 2005.
- 17- **Rockefeller University** Department of Neurobiology, Invited by Pr M.B. Hatten. June 7 2005
- 18- **Univ. California -San Diego** Selected by students of the Neurobiology Graduate Program –November 22, 2005.
- 19- **University of Keio, Tokyo –Japan.** Invited Speaker at the meeting *Dynamics of Cortical Development and Neuronal Migration* organized by Dr Kazunori Nakajima –Jan 30-31 2006.
- 20- **University of Kyoto , Tokyo Japan.** Invited as a speaker by Dr R. Kageyama on Feb. 1 2006.
- 21- **University of Tokyo , Tokyo Japan.** – Invited as a speaker by Dr H. Kawazaki on Feb. 3 2006.

- 22- **Scripps Institute, San Diego- California.** Seminar speaker invited by Dr U. Mueller on June 13, 2006.
- 23- **Vienna, Austria.** Invited symposium speaker at the *European Neuroscience (FENS) Meeting*, July 8-12 2006.
- 24- **Gordon Conference – Neural Development** Invited speaker Aug 20th-25th 2006 – Salve Regina Univ., RI.
- 25- **International Society for Developmental Neuroscience (ISDN).** Invited as a speaker at the August 24th-28th 2006 – Banff, Canada.
- 26- **Cell migration in development and disease** Invited speaker at the International meeting, meeting organized by Drs Chédotal, Mège, Duband, Schneider-Maunoury and Nothias - Univ. Pierre et Marie Curie- **Paris, France** on November 20-21, 2006.
- 27- **University of California -San Francisco** Department of Neuroscience, Invited seminar speaker by Dr John Rubenstein January 25, 2007.
- 28- **University of Pennsylvania,** and Children's Hospital of Philadelphia - Speaker for the MRDDRC Seminar Series. Invited by Dr Jeff Golden. April 10 2007.
- 29- **University of Rochester, NY.** Department of Neuroscience/ Seminar speaker invited by the Graduate student Curriculum in Developmental Neurobiology -April 12 2007.
- 30- **Carnegie Mellon Univ.** – Pittsburgh, PA. Department of Biological Sciences – Seminar speaker Sept. 12 2007- Invited by Dr Justin Crowley.
- 31- Co-Chair of the symposium 'Neuronal Cell Biology' at the **American Society for Cell Biology (ASCB) Meeting** – Washington, DC –December 1-5 2007.
- 32- **Brain Development Symposium** May 12-13, 2008 -London, UK. Organized by Dr Francois Guillemot and Abcam. Invited speaker.
- 33- **King's College London, UK.** Guy's Hospital, MRC Centre for Developmental Neurobiology – May 15, 2008 -Invited by Dr Robert Hindges
- 34- **MRC Mill Hill, UK** – May 16, 2008 - Invited by Dr F. Guillemot.
- 35- **Gordon Conference – Cell Biology of the Neuron** -Chairs: Ann Marie Craig & Joshua M. Kaplan Invited speaker. June 15-20, 2008 Colby-Sawyer College New London, NH.
- 36- **Gordon Conference – Neural Development** – Chairs: Sam L. Pfaff. Invited speaker. August 17-22, 2008 Salve Regina University, Newport, RI.
- 37- **Univ. California Santa Cruz,** Seminar speaker, Department of Biology, Invited by Dr David Feldheim. October 13, 2008.
- 38- **Harvard Medical School,** Seminar speaker, Department of Neurobiology, invited by Dr Michael Greenberg. December 8, 2008.
- 39- **Univ. Minnesota, MN** – Seminar speaker, Department of Neuroscience, invited by Dr Nakagawa. January 20, 2009.
- 40- Co-Organizer of 'Wiring the Brain: from Genetic to Neuronal Networks' – Other organizers: K. Mitchell, E. Hubbard, A. Corvin, I. Graef. April 21-24 2009, Adare Manor, Ireland. www.wiringthebrain.com
- 41- **Washington Univ. St Louis.** Seminar speaker Department of Neuroscience – Invited by Dr Paul Gray. May 22, 2009.
- 42- **Riken Developmental Biology Institute** – Kobe, Japan – Seminar Speaker Invited by Dr Shin Aizawa – Oct. 6, 2009
- 43- **Cortical Development International Meeting** – Awaji Island, Japan Organized by Dr Yamamoto. Seminar Speaker Oct. 8-10, 2009.
- 44- **Scripps Research Institute** – San Diego, CA. Seminar Speaker - Invited by Drs Patapoutian and Muller Oct. 26, 2009.
- 45- **Baylor College of Medicine-** Houston. Seminar Speaker – Invited by Dr H. Bellen, Nov. 10 2009.
- 46- **Stanford University** - Seminar speaker Department of Biology – Invited by Dr Kang Shen – Dec. 8, 2009.
- 47- **Columbia University** – Seminar speaker Dept of Biology – Invited by Dr Doetsch – Jan. 14 2010.
- 48- **St Jude Children's Research Hospital-** Seminar speaker – Invited by Dr Solecki – Feb. 3 2010.
- 49- **Penn. State University-** Seminar speaker – Dept of Neuroscience – Invited by Dr Luscher – March 24 2010.
- 50- **Univ. Southern California** – Zilkha Neuroscience Research Institute-Seminar speaker, Invited by Drs Butler and Ma- April 13, 2010.
- 51- **UT Southwestern University** – Dept of Neuroscience, Seminar speaker – Invited by Dr Jane Johnson – May 11, 2010.
- 52- **Univ. California San Francisco** - Developmental Biology Symposium Speaker selected by students. June 4, 2010.
- 53- **Burke Rehabilitation Center- Cornell University** - Seminar Speaker- Invited by Dr Jian Zhong - Nov. 8, 2010
- 54- **Cold Spring Harbor Laboratories** - Seminar Speaker - Invited by Dr Linda Van Aelst - Nov. 9, 2010.
- 54- **Cornell University, NY** - Burke Center for Regenerative Medicine. Invited by Dr. Jiang Zhong, November 2010.
- 55- **Gordon Research Conference,** Dendrites: Molecules, Structure & Function, Ventura Beach, CA, March 2011.
- 56- **Rockefeller University,** New York, NY, April 16, 2011. Seminar Speaker- Invited by Drs Cori Bargmann and M-B. Hatten.
- 57- **EMBO Meeting,** Cell Biology of the Neuron, Heraklion, Crete-Greece. Organized by Dr Frank Bradke. Invited speaker, May 7-10 2011
- 58- **Friedrich Miescher Institute for Biomedical Research,** Basel, Switzerland. Seminar speaker, invited by Dr. Silvia Arber, May 12 2011.
- 59- **Institute of Biotechnology – University of Helsinki, Finland.** Seminar Series October, 24 2011. Invited by Dr Toni

Makela.

- 60- **SFB 665 International Symposium 2011, Berlin Germany.** *Developmental Disturbances in the Nervous System.* October, 27-29 2011. <http://www.charite.de/sfb665/2011symposium/>
- 63- **Fred Hutchinson Cancer Center- Seattle, OR.** Seminar Speaker, invited by Dr Jon Cooper. January 24, 2012.
- 62- **Univ. Michigan - Ann Arbor, MI** - Neuroscience Seminar Speaker- Invited by Dr Bing Ye. Feb. 8, 2012.
- 63- **Univ. California at San Diego,** Neuroscience Seminar Speaker- Selected by students from the Neuroscience Graduate Program, hosted by Natalie Shanks. February 21, 2012.
- 64- **Okazaki, Japan. Neocortical Organization - International meeting** organized by Dr T. Yamamori. March 9-13, 2012.
- 65- **Univ. Virginia-** Neuroscience Seminar Speaker - Invited by Dr Noelle Dwyer- Feb. 9, 2012.
- 66- **West Virginia Univ.** - Neuroscience Seminar Speaker - Invited by Dr Eric Tucker - Feb 11, 2012.
- 67- **Broad Institute- MIT** - Seminar Speaker - Invited by Dr. Scolnick & The Stanley Center for Psychiatric Research. May 16, 2012.
- 68- **Gordon Research Conference, Cell Biology of the Neuron.** Co-chaired by Dr Peter Scheifelle and Dr Kelsey Martin- Invited speaker - June 24-28, 2012.
- 69- **VIB- Leuven, Belgium.** Seminar Speaker - Invited by Dr Dietmar Schmuker. Sept. 27, 2012.
- 70- **MRC Neural Development- King's College** - Seminar Speaker, invited by Dr Corinne Houart. Sept. 1-2, 2012.
- 71- **Max Planck Institute of Molecular Cell Biology and Genetics (MPI-CBG)- Dresden,** Germany. Invited by Dr Wieland Huttner. October 15, 2012.
- 72- **Max Planck Institute of Evolutionary Anthropology, Leipzig.** Germany. Invited by Dr Svante Pääbo. October 17, 2012.
- 73- **2012 U.S. Kavli Frontiers of Science meeting,** Organized by the Kavli Foundation/National Academy of Sciences. Speaker. Oct. 2-5, 2012.
- 74- **Baylor College of Medicine-** Houston, TX. Neuroscience Seminar Speaker, invited by Dr Kim Tolias. Nov. 9, 2012.
- 75- **UC Davis,** Sacramento, CA. Neuroscience Center Seminar speaker. Invited by Dr Karen Zito. Nov. 15, 2012.
- 76- **Columbia University,** NY. Department of Neuroscience. Seminar speaker. Invited by Dr Fiona Doetsch. Dec. 16, 2012.
- 77- **UC Riverside,** CA Department of Cell Biology and Neuroscience- Seminar speaker. Invited by Dr Todd Fiaco. Feb. 19, 2013.
- 78- **Stony Brook University** NY. Department of Neuroscience. Seminar speaker invited by Dr Maya Shelly. Feb. 21, 2013.
- 79- **Keystone Meeting,** Growing to extremes: Cell Biology and pathology of axons. Granlibakken resort, Tahoe City, CA. Organized by V. Cavalli, M. Fainzilber, J. L. Twiss. Invited speaker. March 10-15, 2013.
- 80- **Vollum Institute** –OHSU- Portland, OR. Invited Neuroscience seminar speaker. Invited by Dr Anthony Paul Barnes. May 8, 2013.
- 81- **Hoffman-La Roche Headquarters-** Basel, Switzerland. Seminar speaker. Invited by Dr Anivan Ghosh and the Neuroscience Discovery Division. May 20, 2013.
- 82- **2013 Neurizons Meeting. Max Planck Institute Göttingen,** Germany. Speaker, invited by student organizing committee. May 22-24, 2013.
- 83- **Lemanic Neurosciences Meeting,** Les Diablerets, Switzerland. Keynote Lecture. Invited by Drs Hoolmaat and Jabaudon. Sept. 20-21, 2013.
- 84- **The Company of Biologists Ltd.- Workshop on Evolution of the Human Neocortex.** Wiston House, Steyning, West Sussex, UK. Invited speaker. Sept. 22-25, 2013. Invited by Dr Arnold Kriegstein.
- 85- **Cold Spring Harbor** meeting on **Development, Function and Disease of Neural Circuits** in Suzhou, China. Oct. 21-24, 2013. Organized by Drs Yimin Zou, Zhigang He, Hitoshi Okamoto and Barry Dickson.
- 86- Invited speaker at **New York Academy of Science Symposium on Alzheimer's Disease.** Dec. 10, 2013.
- 87- **The Scripps Research Institute, Jupiter Florida.** Neuroscience Seminar Speaker - Hosted by Dr Gevan Rumbaugh. Dec. 12, 2014
- 88- **Johns Hopkins University,** Institute for Cell Engineering. Jan. 7, 2014. Seminar speaker. Invited by Dr Hongjun Song.
- 87- **UT Southwestern,** Dallas. Neuroscience Seminar speaker. Invited by Dr Genevieve Konopka. Feb. 18, 2014.
- 88- **Yale University.** Neuroscience Seminar speaker. Invited by Dr Nenad Sestan. March 12, 2014.
- 89- **Univ. Penn.** ChOP research center. MitoRAG research institute. Invited by Dr Stewart Anderson. March 17, 2014.
- 90- **SUNY Syracuse.** Invited Neuroscience seminar speaker. Hosted by Dr Brian Howell. April 29, 2014.
- 91- **Gordon Research Conference on Cell Polarity Signalling.** Invited speaker. Chaired by Linda Van Aelst and Ian Macara. June 1-6 2014. Bentley College, Waltham MA.
- 92- **Chair and organizer of a Symposium on 'Evolution of the human brain'** FENS meeting Milan, Italy. July 7, 2014.
- 93- **Keynote speaker International Symposium on Developmental Neuroscience (ISDN).** Montreal, QC July 22, 2014.
- 94- **Gordon Research Conference on Neural Development,** Invited Speaker. Chaired by Fiona Doetsch. August 10-15, 2014.
- 95- **Neuroscience Colloquium at Washington University, St Louis, MI.** Selected Keynote Speaker - Invited by the Department of Developmental Biology- Dr Aaron DiAntonio. Sept. 26, 2014.

- 96- **Society for Neuroscience meeting- Washington D.C.** Invited Symposium speaker- Mitochondria function in presynaptic release properties. Nov. 2014.
- 97- **Assembly & Disassembly of the Nervous System-** Scientific meeting- Invited speaker, Weizmann Institute of Science - Rehovot, Israel. Jan. 19-21, 2015.
- 98- **Cortical microcircuits organization and function.** Les Treilles, France- Scientific meeting organized by Gord Fishell. Invited speaker. Feb. 9-13, 2015.
- 99- **Wiring the Brain- Cold Spring Harbor meeting** organized by Drs Josh Z. Huang, Kevin Mitchell and Helen Mayberg. Invited speaker. March 24-28, 2015.
- 100- **Institut de la Vision, Paris- France.** Seminar speaker invited by Dr Alain Chédotal. May 22, 2015.
- 101- **Institut de Biologie du Développement - Marseille, France.** Seminar speaker and lecturer invited by Dr Fanny Mann. May 24, 2015.
- 102- **The Long and Winding Road: Neuronal Trafficking in Physiology and Disease, Janelia Farm meeting-** Invited speaker Organized by Dr Kang Shen, Erika Holzbaur and Subhojit Roy. May 31- June 3, 2015.
- 103- **Division of Neuroscience, F.M. Kirby Neurobiology Center, Harvard Medical School,** Seminar speaker, Invited by Dr Beth Stevens Sept. 21, 2015.
- 104- **Department of Developmental Neurobiology, St. Jude Children's Research Hospital.** Seminar speaker, Invited by Dr David Solecki. Sept. 29, 2015.
- 105- **Collège de France - Paris, France-** Seminar speaker, invited by Dr Fekrije Selimi. Oct. 21, 2015.
- 106- **Ecole Normale Supérieure - Ulm, Paris.** Seminar speaker, invited by Dr Cécile Charrier. Oct. 22, 2015.
- 107- **Stem Cell and Brain Research Institute, INSERM U846 - Bron, France.** Invited by Dr Colette Dehay. Oct. 23.
- 108- **University of Utah Salt Lake City, UT-** Seminar speaker- Invited by students of the Neuroscience graduate program. Nov. 17, 2015.
- 109- **University of Rochester, NY-** Seminar speaker- Invited by students of the Neuroscience graduate program. Jan. 12, 2016.
- 110- **Université de Montréal, Québec, Canada.** Department of Neuroscience. Seminar speaker - Invited by Dr Roberto Araya. February 5, 2016.
- 111- **UT Austin, TX.** Department of Neuroscience. Seminar speaker. Invited by Dr Boris Zemmelman and Kristen Harris. Feb. 22, 2016.
- 112- **Jefferson University, Philadelphia.** Department of Neuroscience, seminar speaker. Invited by Dr Le Ma. March 22, 2016.
- 113- **Neuroscience GIGA Institute, Grenoble, France.** invited by Dr Frédéric Saudou. May 22, 2016.
- 114- **Harvard University, Boston, MA.** Center for Brain Sciences. Seminar speaker, invited by Dr Joshua Sanes. Oct. 13, 2016.
- 115- **Keynote lecture at Finnish Neuroscience symposium – Helsinki, FI Nov. 23, 2016.** Invited by Dr Pirta Hotulainen-Minerva Foundation.
- 116- **McGill University, Department of Anatomy and Cell Biology.** Seminar speaker, January 11, 2017. Invited by Dr Lamarche-Vane.
- 117- **Brandeis University, Department of Biology –** Seminar speaker. January 24, 2017. Invited by Dr Avital Rodal.
- 118- **Northwestern University, Department of Neurology.** Seminar speaker. April 4, 2017- Invited by Dr Jeffrey Savas.
- 119- **Keynote Lecture at Annual retreat of the Department of Neurobiology- Yale University,** Invited by Dr Pietro DeCamilli- April 24, 2017.
- 120- **Keynote Speaker at Departmental retreat McGill University** (Department of Neuroscience). Invited by Dr Ed Ruthazer. Sept. 21-22 2017.
- 121- Invited speaker at **CARTA meeting:** Cellular and molecular explorations of anthropogeny– **Salk Institute** Sept. 29-30, 2017.
- 122- Invited keynote speaker **EUREKA symposium** organized by graduate students- Univ. Wurzburg, Germany. October 11-12, 2017.
- 123- Co-organizer and speaker at Les Treilles (France) meeting on 'Brain Evolution' – October 16-20, 2017. Co-organized with Dr Alain Chédotal.
- 124- Seminar speaker at Biogen- Cambridge, MA. Invited by Dr Anirvan Ghosh. November 1, 2017.
- 125- Speaker at **2nd Royal Netherlands Academy meeting** 'Cell Biology of the Axon: Progress Made and Promises Ahead' – Nov. 6-7, 2017. Co-organized by Drs Jeroen Pasterkamp and Casper Hoogenraad.
- 126- Seminar speaker at University of Nevada, Reno. Dec. 6, 2017. Hosted BY Dr Simon Pieraut.

- 127- Seminar speaker **University of Maryland** Jan. 11, 2018. Hosted by Dr Tom Blanpied.
- 128- Seminar speaker at **Univ. Minho- Braga, Portugal** April 26, 2018 – Invited by Dr Tiago Gil Oliveira.
- 129- Invited speaker at **Cortical Development meeting** (ventricular.org). Canaries, Spain. June 4-6, 2018.
- 130- Keynote speaker – Symposium Belgian Society of Cell and Developmental Biology, Organized by Dr Laurent Nguyen. June 8, 2018.
- 131- Invited speaker at **Gordon Research Conference**, Cell Biology of the Neuron, Co-Chairs Dr Kang Shen and Valeria Cavalli. Waterville Valley, NH. June 24-29, 2018.
- 132- Invited speaker, **EMBO Workshop ‘Organelle contacts’** Sept. 21-25 2018, Arosa, Switzerland.
- 133- Invited seminar speaker, organized by Dr Patrik Verstreken **VIB Leuven, Belgium** Jan. 7, 2019
- 134- Invited online seminar speaker, **World Wide DevNeuro-** organized by Dr Denis Jabaudon- [Online](#) March 10, 2020.
- 135- Symposium on Mitochondria functions in neuronal and non-neuronal cells- Speaker at **FENS 2020** – Organized by Paola Bezzi June 11-15 2020.
- 136- Invited speaker at **Duke University-** Invited by Romain Cartoni – January, 7 2021
- 137- Invited speaker at **AMPK meeting** – co-organized by Julien Courchet – Evian-les-Bains- France- September 26-30, 2021
- 138- Invited speaker **EMBO Workshop** on Timing mechanisms linking development and evolution – Barcelona, Spain – June 29-July 1, 2022.

Professional services

Member of the Executive Committee for the Zuckerman Mind Brain Behavior Institute - 2018-present
Chair of the Interschool (Arts & Science and Columbia Medical School) Faculty Search Committee 2015-2016
Member of the Faculty Search Committee – 2016- present

Course Director – G43040 Survey in Neuroscience: from molecules to circuits – Columbia University
 2017-present Fall Course for Graduate program in Neurobiology & Behavior

Reviewer for NIH Study Section

2004-2008 Ad hoc reviewer for NDPR (Neurodifferentiation, Plasticity, and Regeneration Study Section – MDCN 7) – SRA, Dr Joanne Fujii
 2008-2012 Permanent member on NDPR (Neurodifferentiation, Plasticity, Regeneration) Study Section- SRA Dr Joanne Fujii.

Reviewer for The Wellcome Trust, UK.

2008- present *Ad Hoc* Reviewer for Research Grant Applications.

Reviewer for the European Research Council (ERC)- Neuroscience Section

2009- present *Ad Hoc* Reviewer for Research Grant Applications.

Reviewer for the French National ‘Agence Nationale de Recherche’ Grant Review

2019-present Neuroscience Study section

Peer reviewer for the following scientific journals

Science (2005-present)
Nature (2008-present)
Cell (2007-present)
Neuron (2004-present)
Nature Neuroscience (2004-present)
Developmental Cell (2010-present)
Genes & Development (2007-present)
eLife (2012 - present)
PLoS Biology (2008- present)
Science Signaling (2008-present)
Current Biology (2004-present)
Journal of Neuroscience (2002-present)
Cerebral Cortex (2003-present)
Journal of Cell Biology (2007-present)
Nature Reviews Neuroscience (2005-present)

Cell Reports (2011-present)
Nature Communications (2011-present)
Nature Methods (2007-present)
PNAS (2008-present)
Molecular and Cellular Neuroscience (2007-present)
Journal of Biological Chemistry (2007-present)
Journal of Comparative Neurology (2003-present)
Development (2003-present)
European Journal of Neuroscience (2001-present)
Developmental Biology (2004-present)
Developmental Dynamics (2004-present)
EMBO Reports (2006-present)
Neuroscience (2008- present)

Editor

Member of the Board of Reviewing Editors at **eLife** (2012 - 2015)
 Editorial Board Member at **PLoS Biology** (2012 - present)
 Academic Editor for **PLoS Biology** (2008-present)
 Associate Editor **Frontiers in Neuroscience** (2008-present)
 Co-Editor for **Current Opinion in Neurobiology** with Dr M.D. Ehlers – Neuronal and Glial Cell Biology
 Feb 2010 issue.
 Co-Editor for **Current Opinion in Neurobiology** with Dr Joseph Gleeson - Neurodevelopment and Disease
 August 2012 issue.

C. Research Support

Active (Multiple NIH grants as co-PI, not listed)

1R35NS127232-01 (Polleux PI) \$750,000 Direct per year 06/01/2022 – 05/31/2030
Development, maintenance, and human-specific evolution of cortical circuits

2015 Award from the Roger De Sproelberch Foundation

Mid-career scientific prize in Neuroscience

Award from the Nomis Foundation \$495,000 Direct per year 01/01/2020 – 01/01/2024
Deciphering the genetic basis for human uniqueness

Pending

1R01AG046452-01 (Polleux PI) To be submitted 06/2023
Role of CAMKK2-AMPK kinase pathway in Alzheimer's disease

Completed

1R01NS067557-10 (PI Polleux) - 07/01/16 – 06/31/21
Role of SRGAP2 and its human-specific paralogs in synaptic development

1R01NS107483-01 (Polleux PI) 04/01/19 – 03/31/24
Role of ER-mitochondria contacts in dendritic Ca²⁺ homeostasis, synaptic integration and circuit function

1R21NS109753 (Polleux PI) 08/01/19 - 07/31/21
Slit-Robo signaling links synaptic specificity with functional circuit wiring

NIH- R01NS067557-05 (Polleux PI) 4/1/2011 – 3/31/2016
Function of membrane deforming-proteins during neuronal development

NIH- R01AG031524-05 (Polleux PI) 4/1/2008 – 2/28/2013
A kinase pathway required for cortical neuron polarization

5R01NS047701-05 (Polleux- PI) 1/1/04-12/31/09
NIH/NINDS
Genetic Specification of Thalamocortical Projections

N/A (Polleux) 7/1/05 – 6/30/07
NARSAD
Role of Calcium Signaling in the Control of the Migration and Neurotransmitter Expression of Cortical Interneurons

APP#6-FY04-68 (Polleux) 6/1/04 – 5/31/07
March of Dimes
Identification of the factors patterning thalamocortical projections in mammals
The major goal of this project is to identify the *extracellular* cues patterning the projections of thalamocortical axons at the level of the ventral telencephalon, their main intermediate target.

2004-000437 (Polleux) 7/1/05 – 6/30/09
Pew Scholars Program
Identification of the Signaling Pathways Specifying the Dendritic Morphology of Cortical Neurons.

N/A (Polleux) 7/1/07 – 6/30/09
NARSAD
Role of GABAergic signaling in the control of interneuron tiling during cortical development
The goal of this proposal was to provide insights into the molecular and cellular mechanisms controlling the local density of GABAergic neurons in the cortex, a critical step in the proper establishment of a functional cortical circuitry.

1R13NS065534-01 (Polleux) 4/1/09 – 3/31/10
Wiring the Brain: from Genetic to Neuronal Networks
NIH SUPPORT FOR CONFERENCES AND SCIENTIFIC MEETINGS

Graduate student support

Randal Hand	5F31MH078665-03	7/28/2006 - 7/27/2009
<i>Transcriptional regulation of Neurogenin2</i>		
Sabrice Guerrier	5F31NS052969-03	7/18/2006 - 3/31/2009
Minority Predoctoral Fellowship Program – <i>Function of SRGAP2 during brain development</i>		
Jacqueline DeMarchena (Co-PI with Dr Ben Philpot)	1F31NS061610-01A1	1/1/2009 - 12/31/2010
<i>Developmental and experience-dependent changes in synaptic plasticity</i>		
Meghan Morgan-Smith	1F321NS067838-01	9/30/2009 - 9/29/2012
<i>Exploring the Role of TAK1 in Neuronal Polarization</i>		
Jaeda Coutinho-Budd	1F31NS068038-01	12/1/2009 - 11/30/2012
<i>Analysis of SRGAP2 in cortical development in vitro and in vivo</i>		
Annie Lee	1F31AG056083	04/01/2017-3/31/2018
<i>AMPK as a master regulator of oligomeric Aβ42 induced synaptotoxicity and mitochondrial dysfunction</i>		
Daniel Iascone	1F31NS101820	04/01/2017-3/31/2018
<i>Whole-neuron structural input mapping of SRGAP2 regulation of synaptic development</i>		

Post-doctoral funding

Anthony P. Barnes	NIH-NIMH K01 Award	6/2008 - 5/2011
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Kaumudi Joshi	CIRM Post-doctoral Training Grant	1/2013 - 12/2014
Georges Mairet-Coello	Roche Post-doctoral Fellowship	1/2013- 12/2014
Seok-Kyu Kwon	HFSP long-term fellowship	6/2012 - 6/2015
Yusuke Hirabayashi	JSPS PRESTO Grant	2/2013 - 1/2015 9/2016 - 9/2019
Tommy L. Lewis, Jr.	NRSA F32 K99 Pathway to Independence Award (NINDS)	7/2012- 6/2015 7/2015 – 6/2020
Ewoud Schmidt	EMBO post-doctoral fellowship K99 Pathway to Independence Award (NINDS)	2/2015 - 5/2017 10/2018 – 09/2022
Justin O’Hare	NRSA F32 K99 Pathway to Independence Award (NINDS)	10/2018- 9/2021 6/2022 – 5/2024
Heike Blockus	K99 Pathway to Independence Award (NINDS)	4/2020 – 3/2022
Martina Proietti-Onori	EMBO post-doctoral fellowship	3/2022 - 3/2025