

# Q1 President-elect (Vote for ONE)

344

39.31%

60.69%

531



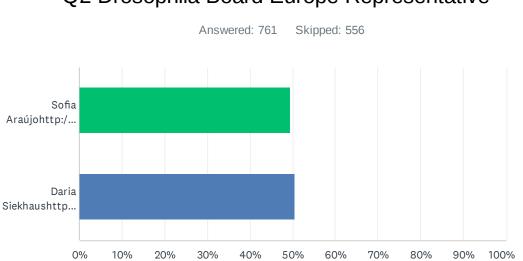
Elizabeth Chenhttps://www.utsouthwestern.edu/labs/chen-elizabeth/research/ I received my undergraduate degree from Peking University in China before coming to the US to pursue my interest in life sciences. As a graduate student at Stanford, I fell in love with fly genetics and joined Bruce Baker's lab to study how the sex determination pathway integrates with other developmental pathways to generate sexually dimorphic tissues. For my postdoctoral studies, I wanted to use the powerful fly genetics to tackle the problem of cell-cell fusion. I joined Eric Olson's lab, which is primarily a mouse lab, and initiated a large-scale forward genetic screen for myoblast fusion mutants in Drosophila. Subsequent work in my own group at Johns Hopkins University (2004-2016) led to the discovery of the asymmetric fusogenic synapse, where one fusion partner extends membrane protrusion to invade the other to promote cell-cell fusion. Like many fundamental principles first discovered in Drosophila, the asymmetric fusogenic synapse has later been found to be a conserved feature underlying the fusion of vertebrate muscle and non-muscle cells. After my lab's relocation to UT Southwestern Medical Center (2016-present), we continue to use interdisciplinary (genetics, cell biology and biophysics) and cross-species (fly, zebrafish and mouse) approaches to study the mechanisms underlying cell-cell fusion, actin cytoskeletal dynamics and mechanobiology. The fly community has profoundly influenced me as a scientist. My first scientific conference was the Drosophila Research Conference, an eye-opening experience for a young graduate student. Over the years, research in my lab has benefited tremendously from colleagues in the fly community and resources at the FlyBase. As a PI, I enjoyed chairing platform sessions at fly meetings and serving on the Election Committee of the Drosophila Board (2017-19) and the Drosophila Image Award Committee (2019-20). My other service experience includes being a member of the National Institute of Arthritis and Musculoskeletal and Skin Diseases Advisory Council, the President of Society for Muscle Biology, and an organizer of international meetings in the fields of muscle biology and cell biology. It would be a great honor to continue giving back to the fly community by serving as the Fly Board President. I will continue the excellent work done by the past Boards and focus my efforts on advocating the importance of fly research; promoting interdisciplinary and cross-species studies; attracting young investigators to the field; enhancing diversity, equity and inclusion; and fundraising for the fly community.



Harmit Singh Malikhttps://research.fredhutch.org/malik/en.htmll grew up in the city of Bombay (Mumbai), India where I got my BTech, Chemical Engineering at the Indian Institute of Technology, Mumbai. Having been enamored by biology and evolution as an undergraduate, I then moved to the US to get my PhD in Biology, at the University of Rochester, NY with Dr. Thomas Eickbush. There, I began my nearly three decades long love affair with Drosophila melanogaster, studying the genetic consequences and evolutionary strategies of retrotransposable elements, especially the R1 and R2 retrotransposons that insert into the multicopy rDNA genes. In 1999, I moved to Seattle to the Fred Hutchinson Cancer Research Center (the "Hutch"), to do my postdoc with Dr. Steve Henikoff to study the 'centromere paradox' i.e., rapid evolution of centromeric DNA and proteins despite essential function. In 2003, I started my own lab at the Hutch, where I am currently a Full Professor & co-Associate Director of the Division of Basic Sciences. In 2009, I was selected as an Early Career Scientist of the Howard Hughes Medical Institute and as a Full Investigator in 2013. My lab studies the causes and consequences of genetic conflicts that take place between different genomes (e.g., host-virus interactions, mitochondrial conflicts with nuclear genomes) or between components of the same genome (e.g., chromosomal competition at centromeric regions). We are interested in understanding these "molecular arms races" and how they drive recurrent genetic innovation, from the perspective of both evolutionary biology and disease. Much of our work focuses on Drosophila species; we use a combination of traditional genetics, genomics, and cell biology. I am most proud of the several postdocs and graduate students who have trained with us, many of whom are faculty in prestigious departments in the US and Europe and are considered leaders in their respective fields. Our work has received significant accolades for me and my lab members. Most recently, I was awarded the 2017 Eli Lilly Prize in Microbiology, the most prestigious prize awarded by the American Society of Microbiology and elected to the US National Academy of Sciences in 2019. I have been a member of GSA since graduate school. I have been a regular attendee at annual Drosophila meetings, where I have spoken several times, including as a Keynote speaker in 2021. I helped co-organize the 2019 Drosophila meeting in Dallas, TX. Previously, I was a Councilor and am currently the President of the Society of Molecular Biology & Evolution (SMBE). I also serve on the editorial boards of seven scientific journals and on the advisory board of five scientific institutes in the US, Europe, and Taiwan. I am passionate about the future success of scientific societies, model organism databases and research, and creating a scientific culture that values diversity and inclusion.

TOTAL

875



# Q2 Drosophila Board Europe Representative

376

49.41%



Sofia Araújohttp://www.ub.edu/ibub/research-group/sofia-araujo/ I am an Associate Professor in the Division of Biomedical, Evolutionary and Developmental Genetics in the Department of Genetics Microbiology and Statistics at the University of Barcelona in Spain. The goal of my research is to better understand how cellular behaviour during development impinges on overall organismal homeostasis and behaviour. In my research lab we work towards understanding how intracellular processes govern cell migration, guidance and subcellular branching, focusing on the organelles and cytoskeleton. Drosophila became my model organism of choice, after my Ph.D. on the mechanisms of DNA damage and repair, when I recognized the power of the fly and joined Guy Tear's lab at King's College London in the UK. After that, I joined Jordi Casanova's lab at the IBMB-CSIC in Barcelona, where I later started my independent research, as a career development fellow. I worked on the mechanisms of tracheal and nervous system development, focusing on cell migration and branching. In 2016, I began my Lecturer appointment at the University of Barcelona and was promoted to Associate Professor in 2020. Since then, I have been very active not only in research and undergraduate teaching, but also in our masters and graduate programmes in Genetics, Earlier in 2021. I became the Head of the Division of Biomedical. Evolutionary and Developmental Genetics. Besides research, one of my passions is to explore new and better avenues to take science to various audiences. So, over the years, I have been involved in many SciComm activities with schoolchildren, primary and secondary school teachers and senior citizens, as well as organizing workshops and courses to help scientists communicate their research. Lately, I have also been involved in opening the doors of scientific conferences to non-scientific audiences (https://thenode.biologists.com/opening-thedoors-of-scientific-conferences-to- local-citizens/outreach). Since 2015, I have been a member of the Junior European Drosophila Investigators (aka JEDI) and co-organized our 2018 meeting in Spain. I am a board member of the Spanish Society for Developmental Biology (SEBD) and was on the scientific committee of our last meeting in 2020. I am also a member of DrosAfrica, helping to build an African Drosophila community (https://drosafrica.org). In 2017-2020 I was honoured to become and ambassador first for ASAP-Bio and then for eLife, where I could work towards better publishing policies, equity, and diversity in science. In 2021, I was appointed a member of the board of reviewing editors (BRE) of eLife.I am eager and willing to bring these motivations and skills to the Fly Board, acting as the European representative.



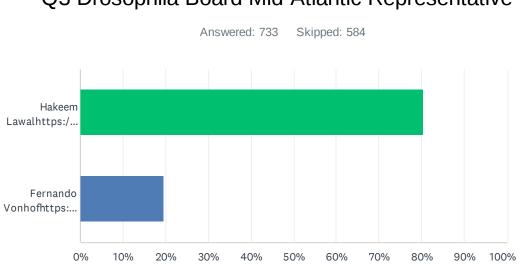
Daria Siekhaushttps://ist.ac.at/en/research/siekhaus-group/ I first fell in love with flies in college at Harvard during an introduction to Biology course taught by William Gelbart. After being shown the antennapedia phenotype I was hooked, and changed my major. I went on to do a Ph.D. at Stanford identifying a role for a neuropeptide processing protease in triggering hatching behavior in a project crafted as a bridge between Mark Krasnow's and Robert Fuller's group. I later worked with Ruth Lehmann, then at NYU School of Medicine, pioneering Drosophila macrophage migration as a model for tissue invasion, a process relevant for immune responses and cancer metastasis. I conducted a screen that showed that moving into and through tissues requires distinct programs from general migration. In my own lab near Vienna at IST Austria my group has used genetics, live imaging, biophysical approaches, next generation sequencing, metabolomics, and glycomics to characterize some of these programs. We like to tease out mechanisms for previously uncharacterized genes with conserved vertebrate orthologs and have identified new regulators of glycosylation and mitochondrial ATP production. We are strong advocates for the power of Drosophila and the wonders of macrophages. My lab has donated lines to Bloomington to enable easy visualization of macrophages and independent manipulation of these immune cells and surrounding tissues, which have been broadly adopted in the fly community. I have also been a co-organizer of the international Drosophila Blood Cell Meeting with attendees from the US, Europe and Asia. I also have regularly attended the European Drosophila Research conference and the Junior European Drosophila Investigator meeting, and have organized sessions at the American Drosophila Research Conference. As the European representative to the Fly Board I would seek to coordinate efforts to increase funding for Flybase from the ERC, Welcome Trust, DFG, FWF, NIH, and Asian grant administering institutions. I would also coordinate to advocate for Drosophila research with journal editors to increase attention from the larger biomedical community. I would try to bring to the other international regions a version of the European fly email lists that allow swift interaction between all European Drosophila PIs, and among their trainees, facilitating the exchange of fly lines, reagents, and advice. Finally, I would work to increase sponsorships and alliances with Drosophila representatives from other continents, including DrosAfrica, to find ways to allow at least online attendance at Drosophila conferences of students, post-docs and PIs regardless of location or funding.

TOTAL

385

50.59%

761



# Q3 Drosophila Board Mid-Atlantic Representative

589

80.35%

19.65%

144

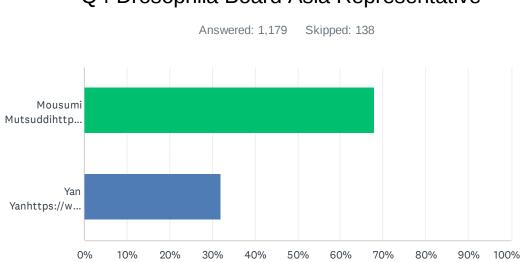


Hakeem Lawalhttps://www.lawallab.org/ I am an Associate Professor and Vice Chair in the Department of Biological Science at Delaware State University and I have been a member of the Drosophila community for over eighteen years. Born and raised in Lagos, Nigeria, I obtained my Bachelor's degree in Microbiology. The era of molecular possibilities ushered in by the completion of the Human Genome Project motivated me to move to the U.S to pursue a Ph.D. in Cell and Molecular Biology at the University of Alabama, Tuscaloosa under the mentorship of Janis M, O'Donnell, My doctorate thesis was focused on using Drosophila to study the regulation of dopamine biosynthesis. I then joined the David Geffen School of Medicine at UCLA for my postdoctoral training in neuroscience in David Krantz's research lab where we used Drosophila as a model system to understand the basic biology of the vesicular monoamine transporter and its relevance to neurological disorders like Parkinson's disease. I moved cross-country once again, this time to start my research lab at Delaware State University where I have been a faculty since 2013. My lab uses Drosophila to elucidate the biology of central synaptic neurotransmission and its relevance to normal and pathological aging. The U.S faces a deep and sustained challenge of under-representation of minorities at all levels in STEM and I have resolved to use my position to help address this issue. Drosophila as a neuroscience resource has allowed my lab to successfully train students, including those from under-represented backgrounds at all levels from high school through doctorate education. I have two goals for moving the community forward; and if elected to the Fly Board, I will work on advancing them. First, I will push for increased funding for critical fly resources like FlyBase, Drosophila Genome Resource Center, and Bloomington Drosophila Stock Center (BDSC) such that they remain as free or subsidized and accessible as possible. Second, I will support further investments in the careers of young Drosophila research trainees and the identification and promotion of those early stage individuals from under-represented backgrounds so that we can build talent from the ground up. As a member of the Drosophila research community, I have benefited tremendously from the use of beloved community resources like the BDSC. I have also served on the volunteer leadership at the Society for Neuroscience (2013-2019), and on several merit review panels at both NSF and NIH. Together, these experiences position me to help identify the needs of the community and help advocate for them on the board.



Fernando Vonhofhttps://vonhofflab.umbc.edu/ I'm honored to be nominated as the potential Fly Board Representative of the Mid-Atlantic Region. I have worked with Drosophila for 15 years, starting as an undergraduate at the Free University in Berlin, Germany, working in Carsten Duch's lab. In 2007 his lab moved to Arizona State University, where I completed my PhD in Neuroscience. In 2012, I started as a postdoctoral fellow in the lab of Haig Keshishian at Yale University. I started my independent lab at the University of Maryland Baltimore County (UMBC) in 2017, where I am currently an Assistant Professor. Throughout my entire career I have studied activity-dependent molecular mechanisms regulating neuronal connectivity, ranging from fundamental processes to neurological diseases. If elected to the Fly Board, my top priority would be to address the concerning fact that certain racial and ethnic groups are underrepresented in STEM relative to their representation in the US population. It still feels for me like a dream come true to be one of the few tenure-track faculty members from an underrepresented background at UMBC, an institution with a strong commitment to promote diversity and inclusion, as evidenced by the Meyerhoff program, which has produced most of the African American M.D.-Ph.D. degree-earners nationwide in the last years. Overall, the scientific community has become more aware of this problem and more programs exist to help minority scientists stay resilient. However, both racial and ethnic underrepresentation as well as gender inequality are still improving at an extremely slow pace. Although my contribution may be modest, I'm determined to continue working with this group of bright minds in the Drosophila research community aiming at forging long-term commitments to promote diversity, equity, and inclusion in the scientific community. Serving on the Fly Board, I believe, it is the best way for me to inspire the next generation of inclusive scientists while also helping build and sustain a more diverse, innovative, and humane scientific enterprise. I'm honored to be nominated as the potential Fly Board Representative of the Mid-Atlantic Region. I have worked with Drosophila for 15 years, starting as an undergraduate at the Free University in Berlin, Germany, working in Carsten Duch's lab. In 2007 his lab moved to Arizona State University, where I completed my PhD in Neuroscience, In 2012, I started as a postdoctoral fellow in the lab of Haig Keshishian at Yale University. I started my independent lab at the University of Maryland Baltimore County (UMBC) in 2017, where I am currently an Assistant Professor. Throughout my entire career I have studied activity-dependent molecular mechanisms regulating neuronal connectivity, ranging from fundamental processes to neurological diseases. If elected to the Fly Board, my top priority would be to address the concerning fact that certain racial

TOTAL



# Q4 Drosophila Board Asia Representative

803



68.11% Mousumi Mutsuddihttps://new.bhu.ac.in/Site/FacultyProfile/1\_157?FA001189 Having over two decades of experience using flies for my research, I have actively engaged with the national and international research communities to advance the field of Genetics in academic and applied industrial research. After garnering a fulfilling post-doctorate experience from Whitehead Institute and as a Scientist at Broad Institute, Massachusetts Institute of Technology, USA, I moved to India in 2006 to establish my laboratory at the Department of Molecular and Human Genetics. Banaras Hindu University. The main goal of my research is to advance our understanding of the genetic and molecular mechanisms underlying neuronal development and neurodegenerative diseases. My laboratory first characterized Maheshvara, as a modulator of Notch signaling and apoptosis in Drosophila. My laboratory has also identified a rare variant affecting retinal neurons in families with hereditary ocular diseases, specifically in the North Indian population encompassing Eastern Uttar Pradesh and Western Bihar. Our lab is harnessing the power of Drosophila to bridge gaps in our understanding of traditional Indian medicine (Ayurveda). On the other hand, we strive to apply mechanistic insights from Drosophila studies in modern medicine to develop novel therapeutic strategies for neurodegenerative disorders. As one of the first Indian Drosophila Flyboard members from 2014-2017, I have gained enormous benefits in various avenues of my professional career. Hence, I would like to spread the word about the Flyboard mission within my professional network. As a former executive body member of the Indian Society for Cell Biology, I advocated formulating strategies to integrate basic biology research for undergraduate students across colleges in rural India that did not have access to state-of-the-art infrastructure. I have partnered with academic publishers such as Springer Nature India to conduct workshops to help Ph.D. students develop outreach, networking, scientific writing, and undergraduate teaching and mentoring skills. Recent work from our lab is an excellent example of how working on a simple developmental behavior using Drosophila model systems can lead to potential therapeutic applications. It is the need of the hour for the scientists working with the model systems to integrate industry and academic research. My experience as one of the early career researchers of South Asian descent in the United States and at the vibrant, diverse Banaras Hindu University has been phenomenal. Hence, the commitment to diversity, equity, and inclusion in science is routine practice in my laboratory. The Flyboard will be a suitable platform to propagate these ideas, develop new ones, and expand a strong network within the region.

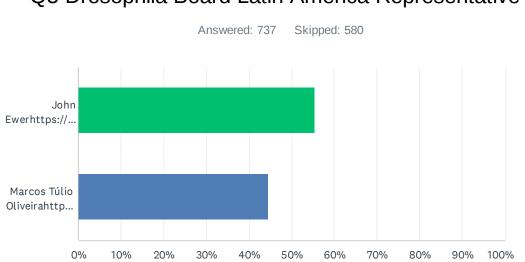


Yan Yanhttps://www.yanlab.ust.hk I received my PhD degree in 2010 from the Department of Molecular Biology at Princeton University. With Professor Trudi Schupbach as my thesis adviser, I performed a genetic screening for mutants affecting Drosophila follicle epithelial morphogenesis and proliferation. My thesis work was to elucidate the functions of a number of novel regulators in the Notch and Hippo signaling pathways. I received postdoctoral training in the laboratory of Professor Chris Doe where I investigated how Drosophila embryonic neuroblasts emerge from neuroepithelia. These training experiences were a starting point for me to learn that cell polarity, and more broadly cell structural proteins, are essential for determining organ size and shape. This became a major research interest in my group after I took an independent position in Hong Kong University of Science and Technology. My laboratory studies organ formation processes including organ size control and morphogenesis through a combination of Drosophila genetics and quantitative biology methods. Over many years I have received many generous help and suggestions from the fly community. I would therefore very much like to contribute to the fly community of which I consider myself as a proud member. I have served as a board member for the Asia Pacific Drosophila Conference since 2014. I helped with recruiting fly researchers to Hong Kong and the broader bay area in China. I think I will be able to facilitate liaison with the fly community in Asia Pacific region effectively as a fly board member.

#### TOTAL

376

31.89%



# Q5 Drosophila Board Latin America Representative

408

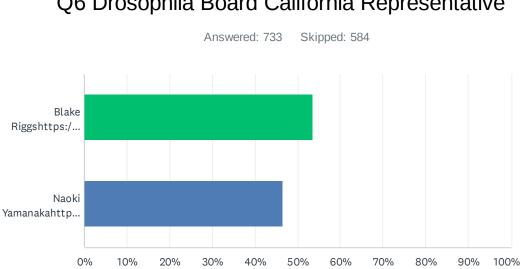


55.36% John Ewerhttps://www.ewerlab.org/ I have used Drosophila for my research (and also in developmental biology teaching labs) starting in Graduate school in Jeff Hall's lab (Brandeis University); this amounts to 36 years! Part of this time was spent in the USA, including as Assistant, then Associate Professor, at Cornell University (Entomology Department), returning to Chile in 2006. Thus, I have experienced the use of Drosophila in the USA, where it is firmly established as a useful research organism, and can contrast this with the situation in Chile, where it is not widely used. But Chile is not an outlier in the region; guite the contrary, it has one of the highest number of fly labs in Latin America. However these total less than 10. This situation is odd, considering what a great organism this little fly is for doing sophisticated experiments essentially on a shoestring. Just contrast the cost of making a transgenic fly vs. a transgenic mouse; not to mention space, maintenance costs, etc. Add to this the well established and observed tradition of respecting the dictum "if it's published it's public"--which means the latest super fly is only a courier away, and you have a really appealing system in which to ask any number of very diverse biological questions using very sophisticated tools. Yet, many Latin American researchers opt to use the mouse for their research. In order to try to revert this tendency, since 2010 I have co-organized a very successful practical course ("Small Brains Big Ideas", http://smallbrains.org/) aimed at showing how Drosophila (as well as C. elegans and bees) can be used to carry out the best research in neuroscience and biomedicine. We now have students of alumni taking the course, so the word is (slowly...) spreading. One of my missions as regional representative would be to work to enlist the help of the GSA to strengthen the use of Drosophila as a research organism in Latin America. You can find information on my research at https://www.ewerlab.org/ We're at the Universidad de Valparaiso, in the port of Valparaiso, described by Lonely Planet as "Syncopated, dilapidated, colorful and poetic, Valparaíso is a wonderful mess." Come visit!



44.64% 329 Marcos Túlio Oliveirahttps://www.fcav.unesp.br/#!/mtoliveira It is an honor to be a candidate for a position as FlyBoard Representative from Latin America. For a Drosophila researcher in North America or Europe, it may sound inconceivable to hear that the simple shipment of an order of fly lines takes more than 6 weeks to arrive, and that the flies very often arrive dead. But this is the reality of Drosophilists in South America, who must rely on stock centers that are too far away in other continents, and count on inefficient international courier and customs services. If elected, I would like to work towards finding efficient ways to deliver flies to labs in South America, which in my view would be one of the most important aspects for the promotion of Drosophila research "down here". Creating a local stock center with the help of Bloomington and the international Fly community would be the ideal scenario. After doing my BS and MSc studies in the State University of Campinas, Brazil, I conducted my PhD work in Dr. Laurie Kaguni's lab at Michigan State University, USA, on the mechanisms of mitochondrial DNA replication in humans and flies. My postdoctoral research was developed in Dr. Howy Jacobs's lab at Tampere University, Finland, with the focus on understanding the biochemical and physiological impact of the ectopic expression of the mitochondrial alternative oxidase on Drosophila. Since 2013, I have been an assistant professor of biochemistry and molecular biology at the Sao Paulo State University-Jaboticabal campus, Brazil, and have continued with these two lines of mitochondrial research, always using flies as models. Our fly work has been financed primarily by the Sao Paulo Research Foundation, and by minor grants from the Brazilian National Council for Scientific and Technological Development, and our lab has currently four graduate and four undergraduate students, who are passionate about what we do. By being far from centers of strong fly research in North America and Europe, I would like to believe some local colleagues and I have created our own fly community with the passion of our students.

TOTAL



# Q6 Drosophila Board California Representative



53.62% Blake Riggshttps://biology.sfsu.edu/faculty/riggs The first time I saw a cell divide, I was hooked. Cell biology and microscopy became a passion for me, as I was fascinated that I could view the dynamics of a cell, the fundamental unit of life. As a young undergraduate, I joined Bill Sullivan's research group investigating the mechanisms involved in cytokinesis. Strangely to me, the Sullivan lab studied this guestion in the fruit fly embryo. I never thought that we could learn anything about human health and development from an insect that would buzz around my kitchen. I was fascinated that many of the genes found in the fruit fly could also contribute to our understanding of human development. Understanding the inner workings of the cell captivated me and the reality that there are so many unanswered questions involving the cell. Thinking of models involving cell division, I hypothesized that intracellular membrane contributed to cytokinetic furrow formation and discovered that Rab11 is involved in metaphase furrow formation in the syncytial Drosophila embryo (Riggs et al. 2003). Completing my PhD, I joined the research group of Rebecca Heald at UC Berkeley to continue my study of mitosis and cell division, specifically focusing on the organization and contribution of membrane organelles during mitosis. Finding difficulties in exploring my models using in vitro Xenopus egg extracts, I was able to show that endoplasmic reticulum (ER) membrane surrounds the mitotic spindle, but does not contribute to bipolar spindle formation (Riggs et al. 2012). In starting my own research group, we asked a simple question, "are organelles inherited during cell division?" Moving back to the Drosophila embryo, we found that ER membrane is reorganized during mitosis and is in frame with the cell cycle (Bergman et al. 2015). Surprisingly, we also saw that the ER is asymmetrically partitioned in a small percentage of cells at gastrulation prior to cell fate determination (Eritano et al. 2017). Currently, my laboratory investigates the role of ER in the correct partitioning of cell fate determinates to generate cell diversity during development. Throughout my career, I have been an advocate for efforts involving greater diversity, equity and inclusion in STEM (Science Technology Engineering and Math). As scientist, we are tasked to answer questions involving human health and natural phenomenon that impact the lives of our nation, however we are not accessing our rich talent in this country. There is an extreme need for different viewpoints and approaches in research and increasing diversity and inclusion is necessary to achieve the next scientific discoveries. As a member of the Flyboard, I will push for greater inclusion of all institutions and viewpoints to move our community into this new era of equity and inclusion.



Naoki Yamanakahttps://www.yamanakalab.com I received my Ph.D. (Biological Sciences) from the University of Tokyo in 2007 for my work on neuropeptides that control insect molting and metamorphosis. I was trained as a fly geneticist when I was working as a postdoc from 2007 to 2014 under the supervision of Mike O'Connor at the University of Minnesota, where I studied molecular mechanisms regulating production and secretion of the steroid hormone ecdysone during Drosophila development. In my own lab in the Department of Entomology at UC Riverside, we work on ecdysone and other lipophilic hormones/lipid mediators that control insect physiology. Through our recent work on Ecdysone Importer (EcI), we are proposing the facilitated diffusion model of lipophilic hormone transport across cellular membranes as compared to the traditional simple diffusion model.I believe that my background in entomology and endocrinology research can bring a new perspective to the Drosophila community, where issues related to "inter-organ communication" are becoming more important than ever before. In the past few years, I have been involved in organizing workshops and conferences on insect hormones, such as the Ecdysone Workshop at the Fly Meeting 2019 and the International Insect Hormone Virtual Workshop this year. I have also been actively engaged in multiple outreach activities in our Entomology Department; in the Junior Entomologist Summer Camp Program led by our graduate students, for example, I teach 4-6th graders how to genotype fruit fly mutants by using PCR. I would like to leverage my experience in these outreach activities to benefit the entire fly community and beyond.

#### TOTAL

733

46.38%

340

RESPONSES

393