INTERNATIONAL SOCIETY FOR COMPUTATIONAL BIOLOGY

2014 ISCB Annual Report: Accomplishments and State of Society

Dear ISCB Members and Colleagues,

What an amazing year it was in 2014! Reaching record membership levels, ISCB continues to achieve our mission to build a strong, global community of researchers dedicated to computational biology and to communicate how important our field is in today's research.

Our society continues to have a relevant voice in a fast-changing scientific landscape. We continue to see the economy recover, aiding in our endeavors. However, historic lows in scientific funding and grant pay-lines continue to plague our efforts. This reduced funding not only hurts scientific research but challenges our community by forcing the investigator to make some very tough decisions. One of these decisions may be limiting the number of conferences you attend, or the number of students you can send. As this limits your opportunities to network, learn, and collaborate, we in the ISCB office are doing everything possible to make the conferences as affordable and valuable as we can for all participants.

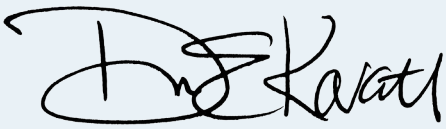
ISCB continues its efforts to recognize the increasing challenges to our members and looks for ways to enhance your member benefits and provide support as you individually maneuver the potentially trying times ahead. In late 2013, we conducted our first ISCB Membership Needs Assessment. Thank you to all of the members who took the time to participate. We had a 23% response rate to the survey and have put the information collected to good use.

Several member-appointed task forces have taken a deeper look at what ISCB has to offer and what else can be done for you — our members. We value your membership and dedication to the society and recognize that the more of us there are, the better we can collaborate and exchange information about science, funding, and the future. We will work together to build a stronger ISCB.

I would like to personally thank the hundreds of volunteers of ISCB. I am indebted for your generosity and willingness to help move ISCB forward. We cannot achieve many of the things we do without the willingness of our members to give their personal time. Please take a few moments to review the Honor Roll of Volunteers in the rear of the report, and thank those you know!

As we look ahead to 2015, I am excited about what the horizon may bring. Consider continuing the journey with us by volunteering, renewing your membership, and helping to grow our community by inviting a friend. I look forward to meeting many of you at the upcoming ISCB conferences. I also welcome your feedback and suggestions anytime. Please feel free to reach out to me at executive.office@iscb.org.

Sincerely



Diane E. Kovats, CMP, CAE
Executive Director

The International Society for Computational Biology (ISCB) - www.iscb.org - is the first and only society dedicated to representing the computational biology and bioinformatics community on a global scale. ISCB is incorporated in the United States as a 501(c) (3) non-profit corporation, and is registered in the state of California as a Charitable Trust. ISCB serves a community of over 3,200 scientists committed to advancing the scientific understanding of living systems through computation.

It convenes world experts and respected emerging leaders in the field at numerous conferences worldwide, and it partners with scientific publications that promote discovery and expand access to computational biology and bioinformatics. ISCB provides valuable information to its members about training, education, employment, and relevant news. ISCB serves as an influential voice on government and scientific policies that are important to its members and benefit the public.

ISCB hosts numerous annual meetings, including its flagship conference, ISMB (Intelligent Systems for Molecular Biology), the world's longest running and largest conference on computational biology and bioinformatics. ISMB alternates between North America and Europe where it is held jointly with the European Conference on Computational Biology (ECCB). ISCB also affiliates with and supports many other significant meetings, associations, and interest groups through its COSI & Affiliates programs.

Collaboration is an essential element to promoting the advancement of bioinformatics and computational biology research. To that end, ISCB has made a significant effort to foster and promote collaborations between researchers in these fields by organizing a greater number of meetings. Beyond ISMB, these meetings include ISCB-Africa (since 2009), ISCB-Latin America (since 2010), and ISCB-Asia (since 2011), as well as focused meetings (now called ISCB-focus meeting): CSHALS (since 2007), RECOMB/ISCB Regulatory and Systems Genomics (since 2012), and ISCB-NGS (since 2013). ISCB also supports several regional meetings in the United States including Rocky (since 2003) and GLBIO (since 2011).

ISCB has two official journals, *Bioinformatics* and *PLOS Computational Biology*, which have some of the highest impact factors in the Mathematical & Computational Biology category. ISCB also has affiliations in place with several other publications for the benefit of its members.

The following report summarizes contributions and activities of the ISCB's elected leaders, committee members, volunteers, and staff during 2014. Grateful acknowledgment goes to the many members named in this report, and the many more left unnamed, whose generosity of time and selfless effort have been essential to advancing the mission of ISCB.

ISCB employs a professional staff consisting of an executive director, a marketing and communications manager, and administrative assistants; one full time and one part-time. In addition, the organization relies heavily on long-term contractors to fulfill additional needs, including the roles of conferences manager, meeting planner, conference administrative assistant, database/web programmers, and graphic designers. Each individual provides essential support to the Society's leadership and global membership.

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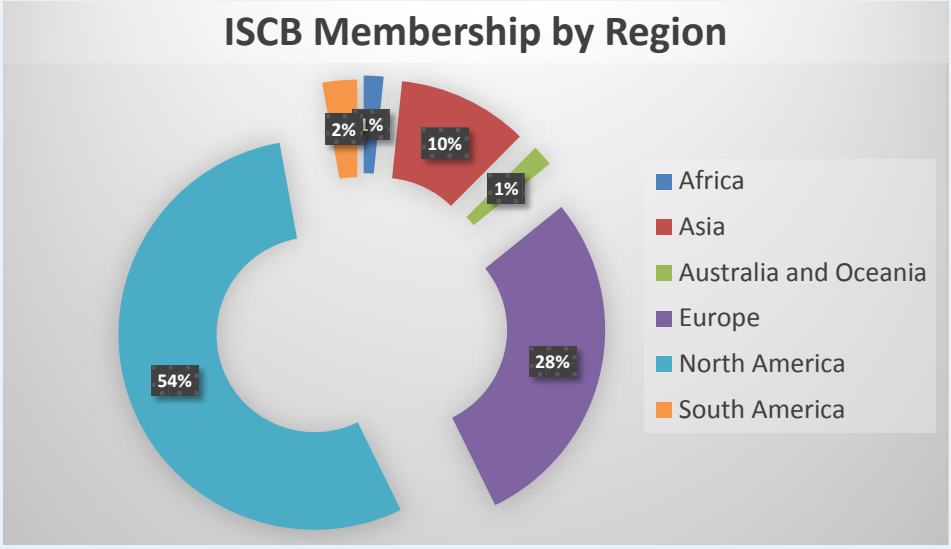
Membership

Members are the lifeblood of ISCB, and recruiting and maintaining active members is essential to the vitality of this Society. At the close of 2014, ISCB celebrated a milestone — the highest membership on record with over 3,200 members. Members hailed from 77 countries. The two largest representations come from North America at 54%, primarily from the United States, and Europe at 28%. The truly global nature of the discipline and the Society is reflected in the number of members coming from countries in Africa (53), Asia (350), Australia and Oceania (57), and South America (93) (Figure 1). ISCB's worldwide presence is also shown by its support of 23 affiliate societies from around the world.

Figure 1. Membership by Region (%)



ISCB supports members of the computational biology community at all stages of their career, and to that end, offers three types of membership: professional, postdoctoral trainee, and student. More than half of the Society's members are professional scientists (1566) from academic, government, or industry settings (Figure 2). Trainees are also represented well in the ISCB membership, with over 500 post-doc and nearly 1000 student members (Figure 3).

Figure 2. Membership by Type (%)

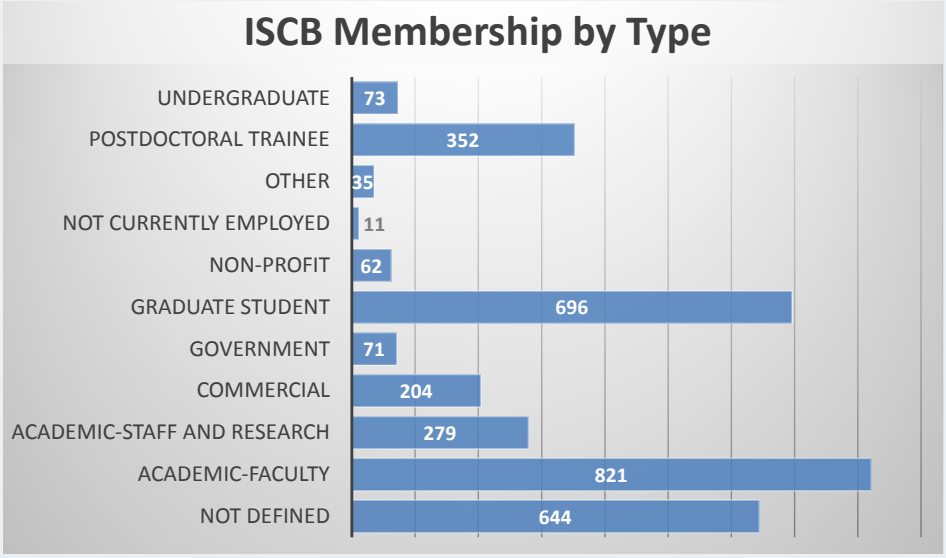
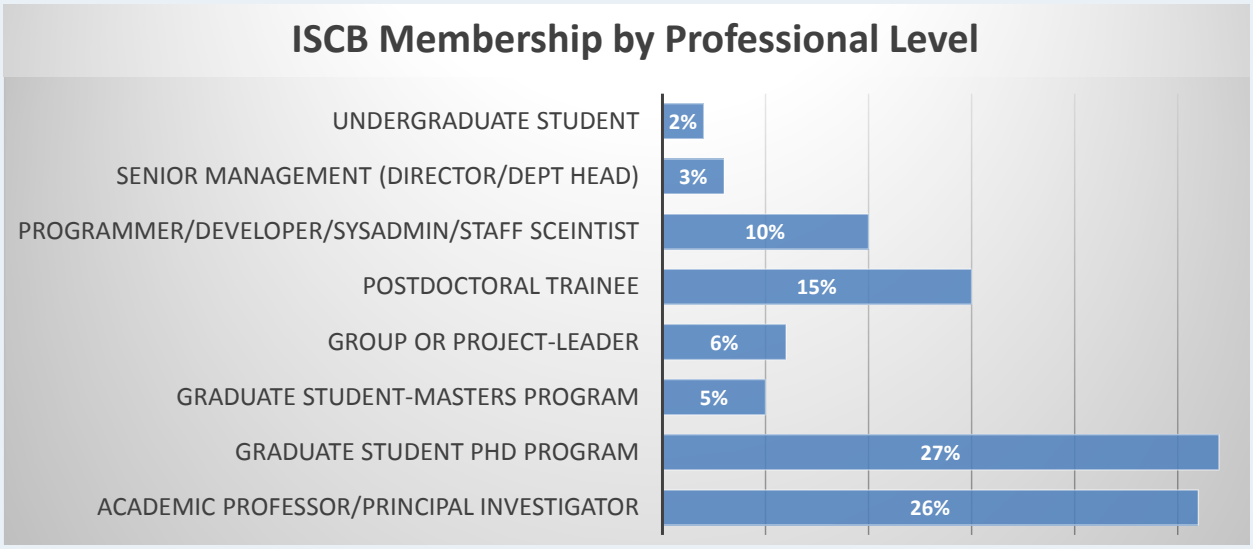
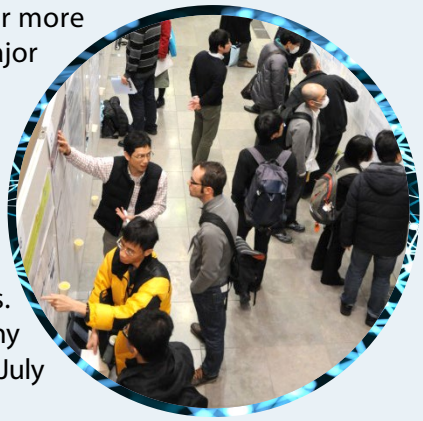


Figure 3. Membership by Professional Level (%)



Society Committee and Leadership Highlights

ISCB thrives on the dedication of its volunteer members. Their passion and commitment to the ISCB mission is evident each year as the Society continues to grow and offer more programs and benefits to its members. The highlights of some of the major achievements throughout 2014 are featured below.



ISCB Holds Elections for Secretary, Vice President, and Student Council Leadership Positions

The Nominations Committee spearheaded the 2014 election for the offices of Vice President, Secretary, and Student Council Leadership positions. An open nomination period was offered to ISCB members to nominate any active member for one of the positions available. Elections were held in mid-July during ISMB.

The Board of Directors of ISCB announced the results of the elections in early August. Members of the society elected the following individuals as officers beginning their terms in January 2015:

Secretary – Scott Markel, Ph.D., Dassault Systèmes BIOVIA, USA. Scott Markel is the Principal Bioinformatics Architect in BIOVIA's Research and Development group. He is the current Secretary for ISCB and will continue in that role. Markel is also the chair of the Publications Committee, led the ISCB executive director search task force, and is on the editorial board for both *PLOS Computational Biology* and OUP *Bioinformatics*.

Vice President – Bonnie Berger, Ph.D., Massachusetts Institute for Technology (MIT), USA. Bonnie Berger is Professor of Applied Mathematics, and on the faculty of the Computation and Biology group at the MIT-CSAIL. She is also an affiliate member of Harvard-MIT Division of Health Sciences and Technology (HST), and MIT's Computer Science and Systems Biology initiative (CSBi). Berger is an ISCB Fellow, currently serves on ISCB board of directors, serves as the chair of the Awards Committee, and chaired ISMB 2014.

Vice President – Christine Orengo, Ph.D., University College London, United Kingdom. Christine Orengo is a professor of Bioinformatics at the University College London. She was recently elected as a member of the European Molecular Biology Organization (EMBO). Orengo is the co-chair of the Communities of Special Interest (COSIs) Committee and played an instrumental role in developing the program. She is also the co-chair of the Conferences Committee and serves as a current member of the Executive Committee and the Board of Directors.

This year's election also included ISCB Student Council leadership. The ISCB Board of Directors is pleased to announce the elected young professionals who will lead the ISCB Student Council (SC) in 2015.

- **Chair** – Pieter Meysman, University of Antwerp, Belgium
- **Vice Chair** – Alexander Junge, University of Copenhagen, Denmark
- **Treasurer** – Jakob Jespersen, Broad Institute, United States
- **Secretary** – Farzana Rahman, University of South Wales, UK.
- **Student Council Representative to ISCB Board of Director** – Jigisha Anupama Darbha, India

For additional information on ISCB's annual nominations and elections procedures, please see http://iscb.org/iscb-leadership-a-staff-/officers-and-board-directors/nomination-election-procedures.

The next call for nominations for directors, officers, and student council leaders will open February 2015 for terms beginning in January of 2016.

The Official launch of Communities of Special Interest (COSI)

ISCB launched its Communities of Special Interest (COSI) program in 2014 to promote virtual networks and make the society a hub of electronic activity throughout the year, by setting up web communities that can share information, hold meetings and discuss ideas 'long distance' via the Internet. These Communities of Special Interest (COSIs) are built around major research themes within computational biology or important activities such as networks of training, mentoring or support. ISCB initially involve groups of people who have already been organizing themselves and holding Special Interest Group (SIG) meetings or workshops at the annual meeting of ISCB - ISMB.

Eleven communities expressed an interest in becoming a COSI and these groups were officially lunched in July of 2014. ISCB plans to nurture these communities by hosting a web portal that provides access to dedicated websites for each community. ISCB will support the computational infrastructure for the COSI websites using Wikimedia tools and will establish mechanisms to help the COSIs raise funds to support the COSI web portal and provide free ISCB membership to the people who will populate the COSI web pages with information. Clearly the content is going to be very important if the COSI wants to attract new followers and maintain members!

This is just the beginning — one can imagine special COSI social events during the main ISMB meeting that also give opportunities for people working on similar scientific problems or facing similar challenges around training or bioinformatics support to meet up and get to know each other better. It always helps to put a face to that name on the electronic forum you've been following or that person you've been exchanging emails with!

COSIs launched at ISMB, Boston, July 2014

3D-SIG	Structure-based drug discovery. Structure representation, classification and prediction Structure-based function prediction. Docking - protein-protein, protein-ligand and protein-nucleic-acid. Protein dynamics; Structural Evolution; Macromolecular assemblies; Structural genomics.

Automated Function Prediction(AFP)	The mission of the Automated Function Prediction COSI is to bring together computational biologists, experimental biologists and biocurators who are dealing with the important problem of gene and gene product function prediction, to share ideas and create collaborations.
Bioinfo-Core	Bioinfo-core is a worldwide body of people that manage or staff bioinformatics cores within organizations of all types. We provide a forum for bioinformatics core managers and staff to discuss issues pertaining to the operation of their core, evaluation of data analysis software tools, and management of relationships with the users of cores.
Bio-Ontologies	The latest and most innovative research in the application of ontologies and more generally the organization, presentation and dissemination of knowledge in biomedicine and the life sciences.
CAMDA	CAMDA presents a crowd sourcing and open-ended data analysis challenge format which focuses on big heterogeneous data sets that are increasingly produced in several fields of the life sciences.
Computational Biology Education (COBE)	The ISCB Computational Biology Education (CoBE) COSI focuses on bioinformatics and computational biology education and training across the life sciences. A major goal of this COSI is to foster a mutually supportive, collaborative community in which bioscientists can share bioinformatics education and training resources and experiences, and facilitate the development of education programs, courses, curricula, etc., and teaching tools and methods.
Computational Mass Spectrometry (COMP-MS)	The ISCB CoSI CompMS is a joint initiative with the HUPO Computational Mass Spectrometry Initiative (HUPO CompMS). It promotes the efficient, high quality analysis of mass spectrometry data through dissemination and training in existing approaches and coordination of new, innovative approaches. The CompMS initiative aims to exploit synergies between different application domains, in particular proteomics and metabolomics.
Network Biology	As more research fields turn to network visualization and analysis for perspective, our Network Biology Community serves to introduce novel methods and tools, identify best practices and highlight the latest research in the growing and interconnected field of network biology.
Open Bioinformatics Forum (OBF)	The Open Bioinformatics Foundation or OBF is a non-profit, volunteer-run group dedicated to promoting the practice and philosophy of Open Source software development and Open Science within the biological research community.
Variant Interpretation (VarI-COSI)	The Variant Interpretation Community of Special Interest (VarI-COSI) is a community of scientists interested in "breaking" the genomic code. The main goal of our COSI is to promote the formation of a collaborative network of scientists interested in the understanding of the meaning of genomic variation as applied to a range of questions, including population studies, functional and evolutionary impacts, and disease.
RegGenSIG	Regulatory genomics, the study of genomic 'control systems,' which determine how, when and where to activate the 'blueprints' encoded in genomes, is the topic of much research activity worldwide. The ISCB Regulatory and Systems Genomics Community of Special Interest - RegSys COSI - focuses on computational methods that are important in the study of regulation of genes and systems. An important goal of the COSI is to foster a collaborative community wherein scientists consider difficult research problems in all areas of computational regulatory and system genomics.

Fostering Relationships through Affiliated Groups

The Affiliates Committee, chaired by Bruno Gaeta has maintained the mission to foster interactions between the Society and its affiliated regional and institutional groups. The Affiliates Committee examines ways in which both partners (the Society and the groups) can mutually benefit from each other. It is the body to which members of the affiliated groups can bring particular concerns and make suggestions for new initiatives.

The Affiliates Committee continues to foster interactions between the Society and its affiliated regional and institutional groups. The group continues its goal to increase the growth of affiliates worldwide and maintain the current 23 very active affiliated groups.

During 2014, The affiliates committee has been hard at work developing incentives for affiliation and for involvement of affiliates, thus building the affiliates program throughout the globe. In addition, the affiliates has focused on Finalizing the Affiliation renewal scheme (which requires an affiliate society to provide a short report on activities every second year to ensure continuity of affiliation). This has become increasingly important with issues from a specific region where the current affiliate society has been reported by former members as no longer representative of the region and no longer meeting the ISCB affiliation criteria and develop marketing materials to encourage regional societies to seek affiliation with ISCB.

The Affiliates Committee is working closely with the COSI Task Force to continue to offer incentives and enhancements to regional and institutional groups.

Education Committee Furthers Mission through their Achievements

The Education Committee was busy and productive over the past year and has highlighted some of its activities below. The Curriculum Task Force of the ISCB Education Committee seeks to define curricular guidelines for those who train and educate bioinformaticians. Rapid advances in the life sciences and in related information technologies necessitate the ongoing refinement of bioinformatics educational programs in order to maintain their relevance. As the discipline of bioinformatics and computational biology expands and matures, it is important to characterize the elements that contribute to the success of professionals in this field. These individuals work in a wide variety of settings, including bioinformatics core facilities, biological and medical research laboratories, software development organizations, pharmaceutical and instrument development companies, and institutions that provide education, service, and training

The task force membership was expanded in 2014 to include the following: Lonnie Welch, Fran Lewitter, Russell Schwartz, Cath Brooksbank, Predrag Radivojac, Bruno Gaeta, and Vicky Schneider.

In July, under the leadership of Fran Lewitter, the first High School Teachers Workshop was held at ISMB 2014. The hands-on workshop was taught by Fran Lewitter, David From (biology teacher at Nashoba Region High School) & Dr. Patricia Palagi, (Head, Training and Outreach, Swiss Institute of Bioinformatics). The workshop included bioinformatics activities that can be used in a high school classroom to help students learn biological principles. Topics included BLAST and other resources available at NCBI (the National Center for Biotechnology Information). An awarded NSF grant was used to support this workshop.

Lonnie Welch of Ohio University was a speaker on a panel at the Association of American Medical Colleges (AAMC) annual meeting of the Group on Graduate Research, Education, and Training (GREAT). The AAMC's GREAT group is a professional development group for graduate school deans, MD-PhD program directors, postdoctoral program directors, and training program administrators that are

responsible for managing biomedical PhD and postdoctoral training at accredited medical schools in the United States and Canada. The group functions as a national forum to help these programs achieve their goal of educating successful biomedical researchers, and it holds an annual meeting to discuss issues related to the training and education of future biomedical scientists.

The curriculum subcommittee headed up by Lonnie Welch, Russell Schwartz, and Fran Lewitter worked on a follow-up article to the piece published in 2012: "Welch LR, Schwartz R, Lewitter F. A report of the Curriculum Task Force of the ISCB Education Committee. PLOS Comput Biol. 2012;8(6):e1002570." The article will be released in early 2014 as part of the ISCB Society pages on *PLOS Computational Biology*.

The Education Committee continues to represent ISCB in at Global Organization for Bioinformatics Learning, Education and Training (GOBLET). GOBLET is a group of leaders from a number of international societies, networks and organizations that meet to discuss global bioinformatics training initiatives. They continue to advocate for and support the great need to coordinate worldwide bioinformatics training activities: to share, not duplicate, effort; to share, not duplicate, cost; to work together in a mutually respectful way towards common solutions and a sustainable future.

The Education committee continued work on bioinformatics curriculum, including a BoF at ISMB. In addition, they continued to join forces with related initiatives in bioinformatics education (NSF RCN, African Task Force on Bioinformatics Education) and to improve the education component of the ISCB website.

Welcome Class of 2014 Fellows

The ISCB Fellows Program recognizes members of the scientific community for their service and their noteworthy contributions to the fields of computational biology and bioinformatics.

Fellows are distinguished through a rigorous process that includes a call for nominations by the ISCB membership, selection by the Fellows Selection committee that is comprised of the previously named Fellows.

The 2014 ISCB Fellows are exemplary members of ISCB and the scientific community and embody the Society's mission to advance scientific understanding of living systems through computation. The research, teaching, and service records of each Fellow shows how their contributions are invaluable to the computational biology community.

Amos Bairoch is a Professor and Director of Bioinformatics in the Human Protein Sciences department of the Faculty of Medicine at the University of Geneva, Switzerland, and he is also a Group Leader at the Swiss Institute of Bioinformatics in Geneva, Switzerland. Bairoch completed his doctorate at the University of Geneva, and his work has been dedicated to the field of protein sequence analysis. Bairoch was a key developer of several seminal protein analysis and prediction tools and databases including SWISS-prot, PROSITE, ENZYME, and Expasy, and is one of Switzerland's most notable bioinformatics researchers.

Ewan Birney is an Associate Director at the European Molecular Biology Laboratory-European Bioinformatics Institute (EMBL-EBI). Birney completed his doctorate at the Wellcome Trust Sanger Institute, Cambridgeshire, United Kingdom, and his research interests include genomic variation, regulatory genomics, and next-generation sequencing data analysis. Birney has been a key player in several major genome projects and was involved in annotating the human, mouse, and chicken genomes, and was a leader of the Ensemble genome annotation project. Birney's outstanding contributions to genomics research have been recognized through several awards, including the 2005 ISCB Overton Prize.

Nir Friedman is a Professor in the School of Computer Science and Engineering and the Alexander Silberman Institute of Life Sciences at the Hebrew University of Jerusalem, Israel. Friedman earned his doctorate from Stanford University in Stanford, California, United States in the field of artificial intelligence, and he is well known for developing methods that apply Bayesian statistics to computational biology. Friedman's diverse research interests include molecular networks, epigenetics, cell regulation, and disease. Friedman's dual expertise in computation and biology has greatly influenced the scope of his research and strengthened his contributions to the computational biology community.

Robert Gentleman is Senior Director of the Bioinformatics and Computational Biology Department at Genentech in San Fransisco, California, United States. Gentleman completed his doctorate in statistics from the University of Washington, Seattle, Washington, United States and is well known for being an originator of the R programming language and Bioconductor, which are now some of the most widely used software programs in bioinformatics. Gentleman's research is focused on analyzing high throughput sequencing data to better understand biological mechanisms, including work on detecting low frequency mutations in tumors and gaining insight into RNA editing in various tissues.

Andrej Sali is a Professor of Computational Biology in the Department of Bioengineering and Therapeutic Sciences, Department of Pharmaceutical Chemistry, School of Pharmacy, University of California, San Francisco, and California Institute for Quantitative Biosciences. Sali completed his doctorate in molecular biophysics at the University of London, United Kingdom. His research is focused on developing and applying computational methods based on the laws of physics and rules of evolution to predict protein structures, determine the structures of macromolecules, and annotate protein functions based on their structures. Sali has published over 300 papers, many of which are highly cited, and he has served the computational biology community as a member of several editorial boards, including *PLOS Computational Biology* and *Molecular and Cellular Proteomics.*

C. Fogg, ISCB Summer Newsletter, July 2014

2014 Student Travel Fellowship Campaign

Student travel fellowships help propel young investigators toward important future discoveries. Join ISCB in giving students access to the principal role models within the field and help influence the paths of scientific careers. As government-funding opportunities continue to decline, ISCB is reaching out to the membership to help this important initiative. Each year, ISCB receives over 300 travel fellowship requests. With currently available funds, this can only support ~70% of these requests by providing partial funding to each recipient.

Making a donation to the travel fellowship fund will enable support of even more students with higher travel awards. We continue to do all we can but there is still more to do — your contributions at any level will allow us to reach more students. By donating to ISCB student travel fellowships, you are investing in the future of our science.

ISCB Official Journal Reports

ISCB Society Pages become Features of OUP *Bioinformatics* and *PLOS Computational Biology*

In 2012, Lonnie Welch and Olga Troyanskaya proposed, and started to execute a plan to better utilize the Society pages of *PLOS Computational Biology* (pages edited by Olga) and OUP *Bioinformatics* (pages edited by Lonnie and Olga).

Throughout 2014, ISCB continued the process of rolling out a new and improved line-up on the ISCB Society Pages. Articles describe specific ISCB programs, highlight significant accomplishments of groups and individuals, and provide opportunities for those who oversee the Society's activities to communicate their vision and plans.

The Society Pages provide a valuable portal for members of the computational biology and bioinformatics community to learn how to get involved in a wide spectrum of activities that include research, education and professional service.

The pages also enable ISCB to cover the society's activities in a more timely fashion. The coordinated plan included the following elements: (1) enhanced breadth and depth, (2) systematic coverage of major ISCB activities, and (3) expansion into both of ISCB's official journals to ensure that critical topics are given broad exposure, and synergistic articles are featured at times.

As the plan is further developed and refined, feedback and guest authorship queries are welcome, especially for articles that highlight conferences, discuss major breakthroughs in the field, or are of interest to the membership. Contact executive.office@iscb.org to offer suggestions.

The ISCB's Official Journal *Bioinformatics* Annual Report to ISCB

2013 - 2014 was a significant year for *Bioinformatics*, as it marked 15 years of the journal in its current form. The contribution of the editorial team is of course vital to the success of the journal, and as such

we have created a new category of Honorary Editors, comprising past editors Alex Bateman, Martin Bishop, Christos Ouzounis, Chris Sander and Gary Stormo. Their contributions to the journal have been exceptional. Martin has also finished his term as our longest-running Associate Editor, having handled well in excess of 5000 manuscripts during his time as an editor. In addition, we thank Mario Albrecht, whose term came to an end, and welcome Robert Murphy as Associate Editor focusing on biological imaging and information extraction.

Our submission rate continued to increase in 2013, to 2200 papers, of which around 30% were accepted. Of our published papers, 160 were published open access, with authors choosing between CC-BY-NC and CC-BY licenses.

Bioinformatics has an impact factor of 5.323, maintaining its position as one of the top journals in computational biology. At the time of writing the 2013 impact factors had yet to be published. Our publication speed remains very fast — accepted articles are online within 5 days and are published in an issue within 7 weeks. Review time is also fast, with first decision within a month. *Bioinformatics* is an official journal of ISCB, and we have collected together the ISCB articles published in the journal over the past year (http://www.oxfordjournals.org/our_journals/bioinformatics/iscb_articles.html).

A collection of papers have been published from a recent workshop organized by *Bioinformatics* Associate Editor David Posada. This 'virtual issue' will be populated with relevant articles as they are published. (http://www.oxfordjournals.org/our_journals/bioinformatics/phylogenetics_virtual_issue.html)

PLOS Computational Biology **Annual Report to ISCB**

PLOS Computational Biology continues to work closely with the ISCB through the publication of the ISCB pages, cross-promotion of journal and society activities, and through regular interaction with ISCB members such as Scott Markel, Diane Kovats and Fran Lewitter.

During the period June 2013 to May 2014, *PLOS Computational Biology* published several 'Message from ISCB' articles. Most notably, the journal has been delighted to host a series of articles by the ISCB Student Council entitled 'Stories from the Road' (Geoff Macintyre, 2013), in which Student Council members present common themes emerging from ISCB Regional Student Council initiatives. The series will be drawn together into a formal PLOS collection in early July, and the final article will publish at the end of August.

Additionally, the journal has published articles welcoming the 2013 ISCB Fellows (Christiana N Fogg, International Society for Computational Biology Welcomes Its Newest Class of Fellows, 2013), announcing a Wikipedia competition (Alex Bateman, 2013), reporting on bioinformatics in the Asia-Pacific region (Asif M. Khan, 2013), recognizing the Women in Biology forum (Reeta Rani Singhania, 2014), defining bioinformatics curriculum guidelines (Lonnie Welch, 2014), announcing ISMB 2014 (Christiana N Fogg, ISMB 2014 —The Premier Conference for the World's Computational Biologists, 2014) and honoring award winners (Christiana N Fogg, 2014 ISCB Accomplishment by a Senior Scientist Award: Gene Myers, 2014).

Review of Journal Progress

- Research article publications are up 3% since last year.
- Average time to first decision is currently at: 46 days (with review); 9 days (without review)
- Key initiatives include: About My Lab; ISC Student Council series, Ten Simple Rules

A selection of standard journal metrics and a summary of other key performance indicators are available below. Unless otherwise stated, all information relates to the period June 1, 2013 to 31 May 2014.

Journal Performance

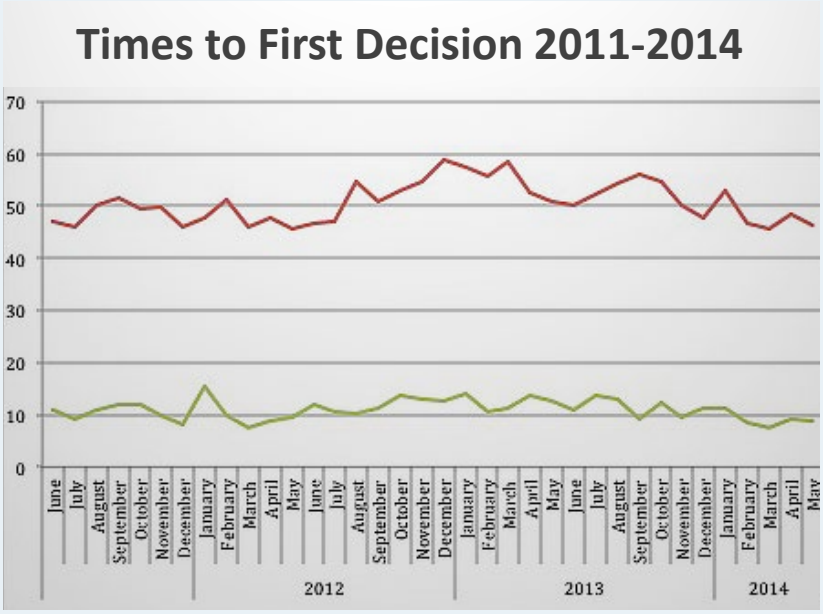
Figure 1. Submission, publication and acceptance rate statistics for research articles for the period 2011–2014.

Journal performance June 2013 to May 2014 (numbers in parentheses refer to the previous year):

- Submitted research articles: 1726 (1668) – 3% up on last year
- Published research articles: 495 (500) – 1% fewer than last year
- Acceptance rate (for May 2014): 29.5% (27%)
- Average submissions per month: 142 (139)

Average editorial decision times (Figure 2) have dropped over the past year. The time to initial decision for papers that underwent peer review has come down from 50–54 days in the latter part of 2013 to 45–48 days in 2014. The time to initial decision for papers rejected before peer review has come down from 9–13 days in 2013 to 7–11 days in 2014.

Figure 2. Average monthly times from submission to first decision for the period 2011–2014.



Publication Highlights

As well as publishing high-quality research, *PLOS Computational Biology* enables members of the community to contribute to scientific communication through the creation of resources for current and future generations of computational biologists, and through the promotion of published research via online press and social media outreach. During 2013–2014 the journal has implemented several projects in pursuit of this aim.

Education section

In December Fran Lewitter stepped down after eight years as Education Editor and we recruited two new Education Editors to fill her role: Francis Ouellette and Joanne Fox. Both the outgoing and incoming editors wrote editorials to mark this change and we took this opportunity to relaunch the Education section with an updated image. A post on PLOS Biologue, the shared blog for *PLOS Computational Biology*, PLOS Genetics and PLOS Biology, announced the change: http://bit.ly/1nHEr67.

About My Lab

A new collection, 'About My Lab', was launched in November with the aim of sharing knowledge about lab organization and scientific management. Each Perspective article represents an interview with a Principal Investigator, who shares his or her experience of running a lab by discussing selected topics

in an informal and personal style. The collection launched with two 'About My Lab' Perspectives, an Editorial by collection editor Theodore Alexandrov and Founding Editor-in-Chief Phil Bourne, and an article featuring interviews with young PIs conducted at ISMB 2013. An additional 'About My Lab' Perspective was published in March, and new articles will be added to the collection over time. Read more in the PLOS Biologue post: http://bit.ly/1ok4CgN.

RECOMB 2014

At the end of March 2014 the journal published five papers, including two Methods papers, in association with the RECOMB 2014 conference: http://bit.ly/1n40Fvp. Methods Deputy Editor Thomas Lengauer co-ordinated this endeavour. The Methods section was added to the journal in 2012.

Ten Simple Rules

Our ever-popular 'Ten Simple Rules' series of articles on professional development, led by Founding Editor-in-Chief Phil Bourne since 2005, reached the milestone of one million page views at the end of July. Dr Bourne describes this series as "one of the unexpected surprises and pleasures arising from the community journal *PLOS Computational Biology*" and, in a post on *PLOS Biologue*, looks back over the history of Ten Simple Rules: http://bit.ly/1kxHhav. The journal regularly publishes new Ten Simple Rules articles, but only in cases where there is something truly new to say.

Press Coverage

A number of our research articles have featured in the media over the past year. In January, an article on social behaviour in dogs appeared in the *New Scientist* (http://bit.ly/1jMh3fg), and authors Zsuzsa Ákos et al. produced a video of dogs' movement, as tracked by GPS, which is available on *YouTube* (http://bit.ly/1nY2YkO). *TIME* (http://ti.me/1mKmlhP) reported in March on an article by Andrey Rzhetsky et al. exploring the effect of environmental and state-level factors on autism incidence. In April, a paper by Kirill Serkh and Daniel B. Forger that presents a mathematical model for dealing with the effects of jet lag was covered by the *New Scientist* (http://bit.ly/Sk9VR8), while a paper by David J. McIver and John S. Brownstein estimated levels of influenza in America by monitoring Internet traffic on specific *Wikipedia* articles, featuring in the *Huffington Post* (http://huff.to/1kpBKOc). The journal's monthly round-up blog post on *PLOS Biologue*, instigated in October, highlights the pick of the issue's articles including any that have been covered in the media (http://bit.ly/1pzNjKF).

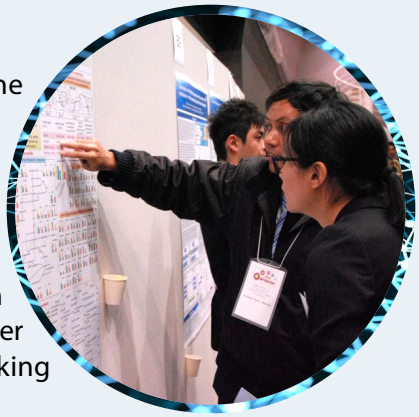
Change of Scope

At the beginning of October, *PLOS Computational Biology* announced an expansion of the journal's scope in response to discussions among the editorial board and the community. This expansion will include papers describing outstanding methods of exceptional importance that have been shown to, or have the promise to, provide new biological insights. Methods papers are a separate category of research article, and are handled Methods Deputy Editor Thomas Lengauer, whose Editorial on the new Methods section was published in March (Lengauer, T., and Nussinov, R., 2013 http://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1002972).

Editorial Board Summit

In October the first-ever *PLOS Computational Biology* Editor Summit was held at George Washington University, Washington DC. It was attended by 26 editors and 4 PLOS staff members, with 3 editors joining via video conferencing.

The summit aimed to strengthen relations between editors from a diverse range of fields within computational biology and to identify journal strategy and priorities for the coming year. The main part of the meeting consisted of discussions on journal policy, processes and direction, and



editors presenting their own research. Suggestions and proposals for the journal from the editors included:

- article-level metrics for reuse
- ways to increase the prominence of published articles
- a rapidly accelerated review process
- how to attract articles from up-and-coming areas of the field.

Speeding up the editorial process and optimizing the submission system were also discussed, and we were pleased to note that a considerable number of editors' requests in these areas are relate to issues PLOS is already working on addressing.

Editorial Board Changes

PLOS Computational Biology would like to thank the many members of the community who made contributions to the journal during the period 2013–2014. Over the past twelve months we have been pleased to welcome the following new Associate Editors to the editorial board:

Jean Daunizeau	Alex Morozov	Avner Schlessinger
Jacque Fetrow	Quaid Morris	Rebecca Wade
Bert de Groot	Marco Punta	Edwin Wang
Claus Hilgetag	Predrag Radivojac	Guanghong Wei
Christina Leslie	Jeffrey Saucerman	Sheng Zhong

Jason Papin, Olaf Sporns and Sebastian Bonhoeffer have been promoted from Deputy Editors to Deputy Editors-in-Chief. Joern Diedrichsen, Christophe Fraser, Jason Haugh, Erik van Nimwegen, Rachel Brem and Mark Alber have also taken on more senior roles at the journal, moving from Associate Editors to Deputy Editors.

We welcomed Francis Ouellette and Joanne Fox as Education Editors as Fran Lewitter stepped down after seven years running the *PLOS Computational Biology* Education section.

Finally, Deputy Editor Nathan Price resigned from his role in September, and we have said goodbye to a number of our Associate Editors over the past twelve months:

Russ Altman	Michael Doebeli	Rob Russell
Tim Behrens	Laurence Maloney	Eugene Shakhnovich
Richard Bonneau	Lauren Ancel Meyers	Berend Snel
Atul Butte	Itsik Pe'er	

Your Federation of American Societies for Experimental Biology (FASEB) Membership at Work

By Allison Lea

ISCB is a member of the Federation of American Societies for Experimental Biology (FASEB), a coalition of 27 scientific societies representing over 110,000 researchers from around the world. FASEB works continuously to promote biological research and has become an organization that legislators, federal agencies, and the media turn to for information on policies related to biomedical science and engineering.

FASEB's Office of Public Affairs (OPA) staff and FASEB's elected leaders meet regularly with National Institutes of Health (NIH) and National Science Foundation (NSF) officials to provide the perspective of the membership on a wide range of issues. In November, the FASEB Public Affairs Committee met with

NIH Principal Deputy Director Lawrence Tabak, National Institute of General Medical Sciences Director Jon Lorsch, and National Association for Biomedical Research Director Frankie Trull. The Committee also met with Dr. Tabak and twelve other NIH Institute Directors in the spring of 2013. At these meetings, FASEB presented concerns of the FASEB membership and received insights into NIH and NSF projections and plans.

Big Data

FASEB has a committee specifically charged with monitoring Information Technology issues and developing policy statements in this area. As a result of the committee's work, FASEB submitted responses to Requests for Information (RFI) on the NIH Big Data to Knowledge (BD2K) training plans and the NIH Data Catalog. FASEB also commented on NIH's Data and Informatics Implementation Plan and draft Genomic Data Sharing Policy.

Federal Funding for Biomedical Research

FASEB's Washington staff met regularly with congressional staff, conveying the views of the research community to the nation's legislators. In March, as part of FASEB's annual Capitol Hill Day, 40 scientists were brought in for meetings in more than 70 congressional offices.

FASEB issued an e-Action alert over the summer urging advocates to email their members of Congress in support of increased funding for NIH. As a result of FASEB's call to action, nearly 20,000 email messages were sent to Capitol Hill imploring lawmakers to prevent further erosion in the nation's biomedical research capacity. OPA staff developed and conducted three advocacy webinars in September, "Capitol Hill Budget Battle: What's At Stake for the Research Community?" for scientists and patients.

During the government shutdown in October, FASEB issued an e-Action alert urging the public to call their elected representatives and ask Congress to end the shutdown, restore funding to NIH, the NSF, and other science agencies to pre-sequestration levels, and agree on FY 2014 budget that sustains prior investment in research. FASEB also created a radio talk guide and encouraged scientists to participate in local call-in radio shows to get the message out about the impact of budget fights on the research community. In December, as part of a final push to increase research funding for the current fiscal year, FASEB mobilized scientists again to write Congress.

Animal Research

FASEB sent letters to four international airlines (Air France and Air France Cargo; China East; China West; and China Cargo) in July encouraging them to continue transporting non-human primates for research purposes, In September, FASEB sent a letter in support of Pro-Test Italia, an Italian group supporting animal research. The letter was featured in *Nature*.

Promoting Basic Research

OPA released a new article from its Breakthroughs in Bioscience series, "Conquering Cancer with Drugs from Nature's Medicine Cabinet."

Get to Know Your ISCB FASEB Representatives

Judith Blake, PhD, FASEB Board Representative

Dr. Blake is an Associate Professor of Bioinformatics and Computational Biology at the Jackson Laboratory. She has been a member of the FASEB Board of Directors since 2003.

David M. Rocke, PhD, FASEB Board Advisor
Dr. Rocke is Distinguished Professor in the Division of Biostatistics, Department of Public Health Sciences and the Department of Biomedical Engineering at the University of California, Davis, where he has been on the faculty since 1980.

Harel Weinstein, DSc, FASEB Science Policy Committee Representative
Dr. Weinstein is the Maxwell Upson Professor of Physiology and Biophysics and Chairman of the Department of Physiology and Biophysics, and the Founder and Director of the Institute for Computational Biomedicine at Weill Cornell Medical College of Cornell University.

Scott Markel, PhD, FASEB Publications and Communications Committee
Dr. Markel is the Principal Bioinformatics Architect at Accelrys and is a part of the Research & Development group. He is also the secretary of ISCB and the Chair of the ISCB Publications and Communications Committee.

Fran Lewitter, PhD, FASEB Science Research Conferences Advisory Committee
Dr. Lewitter is the Director of Bioinformatics and Research Computing at Whitehead Institute. She also is the ISCB Education Committee Chair and leads the ISCB GOBLET collaboration.

Taner Sen, PhD, FASEB Excellence in Science Award Committee
Dr. Sen is a Computational Biologist for the USDA-ARS and a Collaborator Assistant Professor, Department of Genetics, Development and Cell Biologist at Iowa State University. He is also a member of the ISCB Public Affairs Committee.

Society Conferences Highlights

Once again, under the direction of the Conference Committee and chairs Janet Kelso and Christine Orengo, ISCB offered some of the best conferences on computational biology and bioinformatics. Highlights and recaps for each meeting are featured below.

ISMB 2014

The ISMB 2014 meeting was held July 11 – 15, 2014, in Boston, Massachusetts. The science presented was exceptional, and in the course of the three main meeting days, 36 original scientific papers, 48 highlights from recently published papers, 18 Late Breaking Research papers, 21 Oral Poster Presentations, 527 posters, 4 Industry Posters, 38 technology track presentations, 2 Special Talks on Nobel Prize winners, 6 Workshops and 6 Special Sessions were presented. Five (5) Birds-of-a-Feather impromptu meetings were held. Additionally, 2 half-day tutorials, 2 satellite meetings, 11 special interest group meetings and a Student Council symposium were held as pre-conference meetings.

ISMB 2014 attracted 1617 total participants, including 1307 attendees for the main meeting. There were 19 organizations exhibiting; 3 Silver, 5 general sponsors and 2 travel fellowship sponsors. Four (4) media participants attended and reported on the conference. A special High School Symposium was held for Biology Teachers with 30 participants attending this pre-conference event.

In addition to the main conference, special interest group pre-meetings attracted 963 participants with 555, (57%) attending the main meeting, 2 satellite pre-conference meetings attracted 147 participants, 94 (64%) attending the main meeting. The one-day Student Council symposium attracted 50 participants (39 or 78% participated in the main conference). The meeting began with an ice-breaker orienteering event with 60 participants.

The participants at ISMB 2014 represented a broad spectrum of backgrounds, with 46 countries represented at the conference, thus emphasizing its important international aspect. Participation based on geographical origin of attendees (regardless of citizenship) included 63% from the United States, 18% from Europe, 9% from the United Kingdom, 9% from Asia and the remainder well spread from other parts of the world.

Among conference attendees, 36% were from academia; 15%, Post Doctoral fellows; 4% non-profit; 4% government sectors (combination of researchers and faculty), 28% were student registrants and 13% were from the commercial sector. In all, 69% of the conference participants were male, 28% were female, with 3% delegates declining to state their gender. The percentage of female participants seems to be consistent with reported averages of women working and studying within the interdisciplinary sciences that make up the fields of bioinformatics and computational biology.

ISCB expresses its deepest gratitude to all those who participated in the organization of this exceptional conference.

GLBIO 2014

2014 marked the fourth annual Great Lakes Bioinformatics Conference (GLBIO) offered as an official regional conference of the ISCB and the eleventh year of the conference. As in past years, this conference provided an interdisciplinary forum for discussing approaches, research findings, and educational experiences regarding computational investigations of biological problems.

An important goal of this regional conference continues to be fostering long-term collaborative relationships among informatics and life sciences researchers and educators from academia, government, and industry, spanning the North American Great Lakes region and the Canadian provinces of Ontario and Quebec. Researchers from outside these regions were welcomed and encouraged to participate, especially those looking to form collaborations with key labs in the Great Lakes region.

This meeting was not only for experts in bioinformatics, but also for faculty, students, and staff who make substantial use of bioinformatics tools in their work or would like to expand their use.

GLBIO 2014 was held in May and was attended by nearly 250 registrants. The conference featured seven keynote presentations, seven tutorial sessions, twelve highlight presentations, nine research talks, thirteen flash presentations, a career symposium and an education panel, as well as a jobs board and a career consultant to assist with resume and cover letter development and review. There were also two poster sessions held in the exhibition area so that attendees could visit poster presenters and exhibitors alike.

Rocky 2014

The ISCB hosted Rocky 2014, the twelfth annual Rocky Mountain Bioinformatics Conference. The Rocky series began as a regional conference, and has grown into an international program with a spotlight on regional development in the computational biosciences. The presenters of the Rocky conference are scientists representing a broad spectrum of universities, industrial enterprises, government laboratories, and medical libraries from around the world.

The meeting lasted 2.5 days, with nine keynote presentations (two invited, three elevated abstracts, and four sponsors) and the remaining time filled with 10 minute flash presentations and a poster session selected from submitted abstracts that allow everyone who wants to present to do so. Planned at the start of Colorado ski season, the agenda began Thursday morning at 9:00am and ended Saturday at 12:00pm. There were (39) 10-minute talks, (6) 30, (1) 15 minute industry talk, (2) 45 minute keynote talks (sponsored keynotes were 30 minutes and elevated/sponsor keynotes were 30 minutes, industry 15 minutes), and (1) poster session. On Thursday and Friday there was a long lunchtime ski break to enable skiers and non-skiers alike to network in a casual setting outside the meeting room; these extended breaks are considered to be the one of the key reasons most attendees state that they believe they have established new collaborations as a result of having attended the meeting.

CSHALS 2014

The ISCB hosted, the Seventh Annual, Conference on Semantics in Healthcare and Life Sciences. The conference is the premier event focused on the use of semantic technologies in the pharmaceutical industry, including hospitals/healthcare institutions and academic research labs. Topics covered by CSHALS 2014 semantic standards development, data analytics, knowledge representation, information and knowledge management, knowledge engineering, and machine learning and reasoning.

NGS 2014

Next Generation Sequencing (NGS) is a highly parallelized approach for quickly and economically sequencing new genomes, re-sequencing large numbers of known genomes, rapidly investigating transcriptomes, analyzing communities, etc... under different conditions. Producing data on an unprecedented scale, these techniques are now driving the generation of knowledge (especially in biomedicine and molecular life sciences) to new dimensions. The massive data volumes being generated by these new technologies require new data handling and storage methods. Hence, the Life Sciences community urgently needs new and improved approaches to facilitate NGS data management and analysis.

A "moving target", this field requires that bioinformaticians, computer scientists and biomedical scientists join their expertise to bring NGS data management and analysis to new levels of efficiency and integration.

The Conference consisted of a tutorials day, keynote lectures, contributed oral presentations and afternoon Poster sessions. The organizers accepted submissions on novel NGS applications / discoveries algorithms for NGS data processing and integration, and efficient solutions for the management of massive sequence data.

ISCB-Latin America X-Meeting

The third International Society for Computational Biology Latin American Conference (ISCB-Latin America) took place in Belo Horzonte, Brazil at the Universidade Federal de Minas Gerais in October 20th-22nd, 2014. This exciting conference attracted over 400 top-notch researchers and students from around the globe. The conference was comprised of five exceptional keynote speakers, ample sessions developed from abstract submissions, and large and well attended poster sessions.

The major aim of ISCB-Latin America 2014 is to motivate and inspire young Latin American students and post-docs to conduct high-level research in the areas of bioinformatics and computational Biology. This conference provides them with a platform to present their research as well as opportunity

to collaborate and network with some of the world's expert researchers. In addition to the main conference, there were two full days of satellite events; 19 October and 23 October. During these days courses and workshops were held.

GIW/ISCB-Asia

As one of the longest running annual conferences in bioinformatics or computational biology GIW has played an important role in the development of the bioinformatics community in the Asia-Pacific region since its establishment in 1990, adoption of the English language in 1993, and adoption of international site selection in 2006. Now solidly established as an international conference, GIW revisited its birthplace, Tokyo, for 2014.

2014 was an exceptionally exciting year for as the first time for GIW to be was held jointly with the International Society for Computational Biology, as GIW/ISCB-Asia 2014, building on three previous years of ISCB-Asia.

This year we received 86 high-quality submissions from numerous countries covering various fields of bioinformatics. We selected 35 proceedings track presentations at the conference most of which have been published in conference associated special issues of *BMC Genomics*, *BMC Systems Biology*, *IEEE/ACM Transactions of Computational Biology and Bioinformatics*, and the *Journal of Bioinformatics and Computational Biology*, and in addition a few selected papers will be published in *Bioinformatics*. We also had a nine Highlights track presentations selected from 18 submissions. Moreover we were fortunate to have six world leading researchers give keynotes at the conference: Janet Kelso, Alfonso Valencia, Thomas Lengauer, Shinya Kuroda, Masami Yokota Hirai and Limsoon Wong. Finally we had approximately 100 poster presentations (including walk ons).

The conference format was unusual in allotting a long lunch time in the first two days to facilitate networking among participants and exploit the "Odaiba" waterfront location which is a tourist destination of sorts. The mechanics of the conference went smoothly and by and large the delegates appeared happy.

Meeting and Conference Sponsors

ISCB thanks the following sponsors for their generous support of meetings and conferences:

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Suriyaphol Prapat, Faculty of Medicine Siriraj Hospital, Mahidol University
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Wong Limsoon, National University of Singapore
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Zhang, Xuegong, Tsinghua University
Zhang, Zhang, Beijing Institute of Genomics, Chinese Academy of Sciences
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Volunteer Honor Roll

Thank you for supporting ISCB!

ISCB thanks everyone who has made a gift in support of the Society, including the many generous donors who wish to remain anonymous.

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ISCB Student Council Annual Report 2013-2014

ISCB Student COUNCIL

INTERNATIONAL SOCIETY FOR COMPUTATIONAL BIOLOGY

Organization

The elected leadership of the SC for 2012-2013, referred to as "Executive Team", consists of the following: Anupama Jigisha (Chair), Umesh Nandal (Vice Chair), Margherita Francescatto (Secretary), Cynthia Prudence (Finance Committee Chair) Avinash K Shanmugam (BoD Representative) and Chinmay Dwibedi (RSG Committee Chair).

In addition to the Executive Team, the Student Council is made up of a number of volunteer sub-committees responsible for different aspects of the Student Council. Each committee has a Chair and Executive Team advisor (listed below).

Sub-committee	Chair	Executive Team Advisor
Education/Internship	Emre Guney	Anupama Jigisha
Fundraising	Esmeralda Vicedo	Esmeralda Vicedo
Outreach/Volunteer	Umesh Nandal	Umesh Nandal
Web	Pieter Meysman, Dan De Blasio	Avinash K Shanmugam
Regional Student Group	Chinmay Dwibedi	Chinmay Dwibedi

Mission
The mission of the ISCB Student Council is to promote the development of the next generation computational biologists. We achieve our goal through provision of scientific events, networking opportunities, soft-skills training, educational resources and career advice, while attempting to influence policy processes affecting science and education.

Student Council Symposia

9th Student Council Symposium, Berlin, Germany (July 2013)

- Chairs: Tomás Di Domenico and Tomasz Stokowy.
- Keynote Speakers: Alex Bateman (EBI), Satoru Miyano (University of Tokyo) and Gonçalo Abecasis (University of Michigan, Winner of the Overton Prize).
- More than 90 submitted abstracts and over 75 registered delegates.
- Around 15000 USD raised.
- 9 Travel Fellowships awarded.
- Many networking opportunities including scientific speed dating, social events to be held at SCS social headquarters for the event.

10th Student Council Symposium, Boston, USA (July 2014)

- Chairs: Farzana Rahman and Tomás Di Domenico.
- Keynote Speakers: Dr. David Bartel (Whitehead Institute for Biomedical Research, MIT) and Dr. Ashlee Earl (Broad Institute of MIT & Harvard).
- Many networking opportunities including scientific speed dating, social events to be held at SCS social headquarters for the event.

Every year during ISMB, the Student Council organizes talks or a panel discussion on Career guidance for students. This year we are planning a panel discussion on the theme of alternative (non research-focused) careers for students in the Life Sciences (with a focus on Computational Biology). The Student Council believes that such an event can provide a unique perspective that would be very valuable to students and Post-Docs in making their own career choices.

Education Committee
Chair: Emre Guney
As a student managed body we understand it is important to get the right guidance and a good mentor during the early years of training. We aim to address these challenges by organizing internships for undergraduate and graduate students in collaboration with leading international research labs and institutions working in the field of computational biology. The Internship program aims to help students from developing nations to improve their practical skills by providing short-term (3 to 6 months) fellowships.

Between March and May 2014, the Education Committee put forward a call and organized the review process to recruit an intern for the Bateman Group at EMBL-EBI. A student from India was selected by Alex Bateman to do his three-month internship and is currently doing the internship.

Another round of selection is underway for a position at Schneider lab at EMBL-Heidelberg. The internship is expected to start in August or September 2014.

The initiative has some challenges to overcome, one of which is outreach and another, funding. The SC feels that if the computational biology society is made aware of the initiative better, the offers of internships are likely to grow in number. With this in mind a task force was formed with some of the ISCB and SC members, to brainstorm and generate ideas to achieve better outreach.

Some funding proposals are in the process of being written to be submitted to potential sponsors of the internship program. The idea is to aid Principal Investigators to a certain extent with any obtained funds.

Regional Student Group (RSG) Committee
Chair: Chinmay Kumar Dwibedi
The Regional Student Group committee has added two new RSGs this year to its network and revived two inactive RSGs, thus maintaining a pool of 19 active RSGs worldwide for the year 2013. The first half-term of 2013 saw the addition of RSG Switzerland RSG North Africa. Later in the year, RSG United Kingdom and RSG Germany rejoined the active network.

The committee has successfully completed two cycles of RSG funding program in 2013 whereby proposals to conduct events are submitted by RSGs, reviewed by the SC and funded from the annual budget. This year the SC received 7 applications various RSGs. A total funding amount of $1490 was approved for various events organized by 6 different RSGs in 2013.

In 2014, the committee decided to execute a more flexible funding scheme with 2 cycles that will receive event proposals within a deadline and a floating program where RSG can submit a proposal for an event that occurs in between the 2 cycles. The first cycle, held in April 2014, already saw $800 directed towards events organized by 4 RSGs. The next call is expected in August 2014.

Now, the committee is actively working towards expanding the RSG footprint and to cascade the SC activities through the RSG worldwide network. One such example is sponsor recruitment for the Student Council Symposium at ISMB 2014. RSGs are being sought for help in fundraising in their local areas and any funds secured would be used to fund travel to ISMB for students from that region. Another example is the Latin American Student Council Symposium, which is being organized for the first time alongside the ISCB-LA conference in Belo Horizonte, Brazil. This event is being organized with the assistance of RSG Argentina.

Further, the RSG committee is continuing its effort to promote effective communication and collaboration between neighboring RSG with the addition of vice-chairs dedicated to each of three major regions (Europe, Africa and Asia-Pacific) and organizing periodic conference calls for the leaders of all RSGs in the region.

Web Committee
Chairs: Pieter Meysman and Dan DeBlasio
The web committee continues to provide support for the websites and other infrastructure for SC activities. At the end of last year, the web committee underwent a transition from the previous volunteer team that has been in place for the past 3-4 years to a new team. Over the past year, the new team was fully integrated; having taken administrative control of all aspects of SC web infrastructure.

The new web committee team initiated a move between server hosts from Rackspace Mosso to Dreamhost. This was mainly done to improve the flexibility available for the web server since the Rackspace admin options were found to be quite restrictive. But as an additional benefit, we were also able to apply for and get Dreamhost's free hosting plan for non-profit organizations, thereby saving on hosting costs. The migration to the new host is proceeding well and the move to the new server will likely be completed in the coming few months.

Alongside this main initiative, we have also begun a comprehensive re-design of the SC website in consultation with the Outreach committee. We hope to make the website more user friendly, more future proof and also accommodating a new model of providing separate but linked websites to each of the RSGs. In addition, we are also investigating various conference submissions management systems in an effort to settle on a system that can be customized to the requirements of the upcoming Student Symposia (SCS and ESCS). We expect to complete both of these too within this year.

Outreach Committee
Chair: Umesh Nandal
The Outreach and Volunteer committee of the Student Council is responsible for keeping the members of the ISCB and the Student Council up to date on our work. Beyond that, it is involved in planning and implementation of all activities related to the promotion of the Student Council outside the ISCB

and to membership recruitments. It is also responsible for answering the queries concerning Student Council activities and information dissemination to various Student Council social media such as *Facebook*, *LinkedIn* and *Twitter*.

This committee is now working closely with the web committee to renovate the Student Council website and to keep its content up to date. With the new membership recruitment form on Student Council website (http://iscbsc.org/content/membership), outreach committee is bringing more active volunteers to the Student Council and hence connecting more young researchers across the globe.

Finance Committee
Chair: Esmeralda Vicedo
The Fundraising committee aims to create sufficient funds able to support the activities and growth of the Student Council. This includes events such as the Student Council Symposium and funding opportunities for RSGs and general operations. They are responsible for recruiting sponsors, grants and other funding opportunities as well as creating and maintaining the budget.

In 2013, the committee led by the then Finance Chair, Cynthia Prudence raised $15,000 for the Student Council Symposium that was held in July in Berlin, Germany.

In 2014, the committee raised over $5000 for the event in Boston, USA.

The committee is currently in the process of fundraising for the European Student Council Symposium in Strasbourg to be held in September 2014. They are also preparing to fund-raise for the extension of the student council series into Latin America. Finally, the Committee is establishing a mentoring initiative to better collaborate with RSGs to raise funds for future symposia to enable more members to attend the Student Council Symposium in the future.

Publications Committee
Members: Geoff Macintyre, Magali Michaut, Thomas Abeel
Since 2005, the RSG program of the ISCB Student Council has continued to grow and flourish. With over 2000 student members, across 23 countries, the RSGs are providing valuable initiatives to support and promote students in bioinformatics and computational biology. Their experiences are worth sharing and perhaps will inspire many more students to join these groups. An article series documenting the various RSG initiatives, experiences and concerns was proposed by the SC and approved by the ISCB publications committee to be published in the *PLOS Computational Biology* ISCB pages. There are currently 12 articles in the series and with over 20 authors it has been a mammoth effort in coordination. A new SC publications committee was set up to help organize the series and the first articles appeared in mid 2013.

Nine articles have already been published and we are looking to submit the 10th one in July 2014.
Links to published articles:
http://www.ploscompbiol.org/article/info:doi/10.1371/journal.pcbi.1003241
http://www.ploscompbiol.org/article/info%3Adoi%2F10.1371%2Fjournal.pcbi.1003305
http://www.ploscompbiol.org/article/info:doi/10.1371/journal.pcbi.1003340

Future Plans

The Student Council will be striving to continue to provide successful initiatives such as the ISCB Student Council Symposium, Internship program and RSG program — over the coming year, effort will be placed on fundraising, website renovation, acquiring collaborations for our internship initiative and welcoming more RSGs.