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Message from ISCB: Outstanding contributions to ISCB award

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2015 marks the first year that the International Society for Computational Biology (ISCB) honors one of its members with the Outstanding Contributions to ISCB Award. This award recognizes an ISCB member who has made unique and lasting contributions to ISCB through exemplary leadership, education, service, or a combination of these elements.

Lawrence (Larry) Hunter, Professor at the University of Colorado Medical School, is the inaugural winner of the Outstanding Contributions to ISCB Award. He will receive this award at the 2015 Intelligent Systems for Molecular Biology/European Conference on Computational Biology (ISMB/ECCB) in Dublin, Ireland in July 2015.

Larry Hunter: Founding Father of ISMB and ISCB

Larry Hunter pursued computational biology as a graduate student at Yale University in the 1980s before such a term for the field existed. He built a computer program that used case-based reasoning to diagnose lung tumor pathology, but he felt frustrated by the limits of computation having a noticeable impact on disease outcomes (Gibson 2012). As a freshly minted PhD with a background in artificial intelligence (AI), Hunter sought out career opportunities that would apply his skills and give him a steady paycheck. He joined the NIH's National Library of Medicine (NLM) in March 1989 as one of its first computer scientists, during a time when NIH was trying to strengthen its influence over the Human Genome Project. Hunter began maintaining a database of AI researchers with interests in molecular biology, and in 1991 he used this list to organize the first workshop that formed the basis of the Intelligent Systems for Molecular Biology (ISMB) meeting. The official 'first annual' ISMB conference took place in 1993 on the NIH grounds and sold out almost instantly. Different universities in the US and UK hosted the next several ISMB conferences, and Hunter and others, including Russ Altman, Chris Rawlings, David Searls and Jude Shavlik were the primary meeting organizers. Planning and organizing each meeting presented unique challenges, but moving money for the meeting between institutions became a particularly cumbersome task.

The burgeoning popularity of the early ISMB conferences as well as the financial and logistical challenges of organizing the conferences compelled Hunter and his colleagues to consider establishing a scientific society for those who used computation to investigate biological questions. At the ISMB 1996 conference in St. Louis, MO, Hunter and members of the steering committees from prior ISMB conferences met to discuss the possibilities of organizing a new scientific society, and they voted on a board of directors, including Hunter as president, to guide this effort (Ferguson and Morrison McKay 2006). Hunter recalled, 'I felt a great sense of obligation to make the Society work. There were a growing number of people coming to the field, and the conference was expanding pretty rapidly. I had never run an organization before, and was very concerned about getting it right. There were also some political issues that I felt I had to be very careful to get right. Researchers with a background in computational complexity theory thought of themselves as quite different from the ones who came from a background in AI. There was some discussion by people who wanted to form a different society, associated with the Research in Computational Molecular Biology (RECOMB) conference. We had a long dinner on a Greek beach at the ISMB 1997, which was the basis for working out an agreement that kept the community whole'. The board agreed on a mission statement for the nascent society at this marathon strategy session in Greece. The original statement was, 'The International

Society for Computational Biology is dedicated to advancing the scientific understanding of living systems through computation; our emphasis is on the role of computing and informatics in advancing molecular biology', but the second phrase has been dropped to adapt to the Society's broader focus. The board agreed on the International Society of Computational Biology as a name, and ISCB was officially incorporated as a non-profit organization in 1997.Hunter faced some unexpected challenges as president of the newly formed ISCB, including the unforeseen difficulties of trying to find a bank that would accept a large check that was the underlying funding for this organization. He was keenly aware that scientists with allegiances to ISMB or to RECOMB, a competing conference, had to feel welcome and appropriately represented by ISCB. Most surprisingly, he recalled, 'I greatly underestimated the amount of time it would take to make it all work. We had no staff, and everything was done by the executive committee, so I put much more time into it than I thought I was going to'. He remembered how computational biology and bioinformatics were considered as peripheral and offbeat fields by many scientists at the time of ISCB's founding. 'Hard, logical computer science was seen as having no connection at all to wet, squishy biology', he recounted. 'When I mentioned "computational biology," people couldn't even hear the words together, they would often say "confrontational biology, what's that?"'

ISCB has grown and evolved as a scientific society since its founding, especially as computational biology and bioinformatics have becoming increasingly vital components of biological research. He has seen ISCB become a critical resource for facilitating interactions and collaborations between scientists across fields, especially via ISMB and its other conferences. 'I think my proudest achievement is that the society is still going today', Hunter said. 'I booted it up in good enough organizational and financial shape that it looks like it will have a long life. I expect it will outlive me. It's really an honor to have created something of enduring value for so many people'.

Hunter envisions that ISCB will adapt and change in the future in order to be of value to its membership. He said, 'One interesting possibility would be for ISCB to organize events and activities to provide short-term training in informatics to biomedical researchers. Conferences like VizBi do that very well for biological visualization, and ISCB might be able to meet a need organizing similar conferences or tutorials at non-bioinformatics meetings. Twenty years from now I will be almost 75, so it will have to be the next generation to figure out how the Society evolves to stay relevant and valuable'.

References

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