

APBioNet

Newsletter

HIGHLIGHTS

**17th International Conference on
Bioinformatics (InCoB2018), India**

APBioNet AGM 2018

Travel Fellowship Awardees,

Report from Travel Fellowship Recipients



**2nd International Symposium on
Bioinformatics (InSyB2018), Malaysia**



**Myanmar Bioinformatics Outreach
Programme**



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President's Note

As it was in past years, 2018 was no less an eventful year for us at APBioNet! In fact, it was momentous - APBioNet turned 20 in 2018! APBioNet has indeed come a long way as one of the oldest and largest bioinformatics organisations in the region. It was founded in 1998 at the Pacific Symposium on Biocomputing in Hawaii, USA. Since then, the organization has established itself as one the vanguards of bioinformatics in the Asia-Pacific Region. We plan to have a special session to remember this anniversary during the opening ceremony of the International Conference on Bioinformatics (InCoB) 2019. InCoB is the flagship conference of APBioNet.

A major activity in 2018 was the biannual Executive Committee (2018-2020) Members elections. I would like to wish a hearty Congratulations to all the ExCo members on their appointments as leaders of APBioNet for the term 2018-2020. A warm thank you also goes to the outgoing ExCo members of the 2016-2018 term.

The year also saw the successful organisation of InCoB 2018 in New Delhi, India. This was the second time InCoB was held in India. The event saw partnership with APbians, a Bioinformatics Society in India, with the aim to exchange ideas, knowledge and opinions on the issues of Bioinformatics, particularly with a view on India and its region. InCoB's sister event, the International Symposium on Bioinformatics, aimed towards younger researchers and a more thematic content, was also held successfully in Selangor, Malaysia, with more than 100 participants, local and international. InSyB2018 saw partnership with MyBioinfoNet, an entity dedicated to serve as a networking platform for Malaysians or non-Malaysians, within or outside Malaysia, with interest in growing bioinformatics in the country. InSyB2018 was the second instalment after its launch and inauguration in Jakarta, Indonesia in 2017. As InSyB spreads out from Indonesia, InCoB makes way into the country for the first time in the entire history of the conference.

In pursuing our mission, APBioNet, for the first time, supported an outreach bioinformatics workshop to Yangon. We hope to support more of such events in other parts of the region. If you are interested in hosting such programs, do let us know so that we can spark the discussion for such opportunities.

APBIONET AGM 2018

By: Dr. Choi Sy Bing, Perdana University, Malaysia

The year 2018 was a full one for APBioNet. The Annual General Meeting (AGM), which took place on 27 September 2018 during the International Conference in Bioinformatics (InCoB) in New Delhi, India, provided a reflection of all our activities this year.



The AGM began with the welcoming of new members of the Executive Committee who won their places through an election process. APBioNet is thankful to have the continued expertise and leadership of several members who are serving for yet another 2 years on the committee and would like to extend a big congratulations to the new ExCo members!

Our President then delivered his annual report. Dr Christian Schönbach thanked the organizers of InCoB2018, and outlined the number of participants (95), publications (65), local grants awarded (11) and travel fellowship awards (12) for the conference. He reported on the success of the first symposium by APBioNet – International Symposium on Bioinformatics (InSyB), which was held for the first time in Jakarta, Indonesia had garnered attention from local bioinformaticians and how this event had sparked discussion for bringing the conference to that region for the first time in 2019. He also lauded APBioNet's continued participation in GOBLET and bioinformatics education activities around the world.

The AGM was followed by APBioNet Travel Fellowship awards ceremony, which has been APBioNet's effort in helping deserving and aspiring students to attend InCoB events within the region. The President invited bids and expression of interests for future InCoB and InSyB events. More information on this is available at : (<https://incob.apbionet.org/expression-of-interest-eoi/>).

ExCo Election 2018-2020

By: Choi Sy Bing, Perdana University, Malaysia

The Secretariat of APBioNet is pleased to announce the results of the office bearer position appointments and the formation of the new Executive Committee (<https://www.apbionet.org/organisation/>), following the results of the recent election for the term 2018-2020. Dr. Mohammad Asif Khan from Perdana University, Malaysia, who has been an ExCo member since 2010 and has served in various roles, is the President-elect. Dr. Khan is the fourth President to serve and lead APBioNet, and will be supported by two Vice Presidents, a Treasurer and Secretary.

The Immediate Past-President and a long standing ExCo Member, Dr. Christian Schönbach from Nazarbayev University, Kazakhstan will serve APBioNet in his role as the Vice President for Conference and Outreach. Dr. Yam Wai Keat, from Perdana University, Malaysia, helms the position of Vice President (Education and Research). Dr. Ong Hui San and Dr. Ranjeev Hari, from Malaysia, are appointed as ExCo Treasurer and Secretary, respectively. Dr. Bruno Gaeta of University of New South Wales, Australia, Dr. Kenta Nakai of University of Tokyo, Japan, Dr. Ge Gao of Peking University, China and Dr. Sissades Tongsimma of BIOTEC, Thailand will support the office bearers in their role as ExCo members.

Congratulations to all the ExCo members on their appointment to lead APBioNet for the term 2018-2020! A vote of thanks goes to the outgoing ExCo members of the 2016-2018 term, led by the Immediate Past-President Dr. Christian Schönbach. The new ExCo aims to lead and pioneer new frontiers for the development and growth of bioinformatics in Asia-Pacific.



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Lecturer & Vice Dean (Academic Affairs),
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Professor,
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Sissades Tongsimma, Ph.D.
ExCo Member
Head of Biostatistics and Informatics Laboratory,
National Center for Genetic Engineering and Biotechnology, Thailand



International Conference on Bioinformatics 2019

‘Bioinformatics for Precision Medicine’

Jakarta, Indonesia. September 10-12, 2019



**CALL
FOR PAPERS
Submit by :
March 31, 2019**



*Prof Adrian Hill
Oxford University, UK*



*Prof Sir Munir Pirmohamed
Liverpool University, UK*



*Prof Katsushi Tokunaga
University of Tokyo, Japan*



*Prof Christine Orengo
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Johns Hopkins University*



*Dr Denis Bauer
CSIRO, Australia*

Participating journals:

- ◆ - BMC Genomics
- ◆ - BMC Bioinformatics
- ◆ - GigaScience
- ◆ - BMC Medical Genomics
- ◆ - BMC System Biology
- ◆ - PeerJ
- ◆ - Bioinformatics
- ◆ - Computational Biology and Chemistry

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InCoB2018 Travel Fellowship Awards

By: Choi Sy Bing, Perdana University, Malaysia

The 17th InCoB received travel grant applications from Malaysia, Taiwan and India. A total of USD 2,945 was awarded to students who successfully secured their travel fellowships, based on the strict criteria set by the committee.

Apart from receiving cash disbursements, the students received certificates during the closing ceremony of InCoB2018. The recipients of the award were: Shuhaila binti Mat Sharani (National University of Malaysia), Chong Li Chuin (University Putra Malaysia), Ashish Kumar Agrahari (Vellore Institute of Technology, India), Nikita Poddar (Banaras Hindu University, India), Bharati Pandey (Bhabha Atomic Research Centre, India), Rakesh Trivedi (Centre for DNA Fingerprinting and Diagnostics, India), Tan Hui Ming (Perdana University, Malaysia), Jaamuna A/P Gnanaserkhar (Perdana University, Malaysia) and Shakti Darsshini A/P Kamalanathan (Perdana University, Malaysia).

We congratulate all these students, and look forward to awarding more deserving recipients at the upcoming InCoB!



InCoB2018 : *From My Eyes*

By: Bharati Pandey, DWR, India

I wish to express my gratitude to APBioNet for providing me a travel grant to attend and participate in InCoB 2018 held at New Delhi from 26-28 September, 2018. More than 350 people from a dozen odd countries across continents took part in InCoB2018. I applied for the InCoB2018 Travel Award to have an opportunity to show our work in the Structure, Function and Interactions of heterotetrameric allosteric enzyme to the international bioinformatics scientific community. This award has encouraged me to double efforts to continue my research with the aim of producing strong scientific outcomes. It has given me an opportunity to present my work in an international conference to a diverse audience and to share my research experience in the scientific community. I hope they will benefit from our current work and may also provide constructive suggestions for our future endeavors.

InCoB2018 had fantastically high quality talks which both injected and inspired passion. The conference focused on the diverse area of Bioinformatics such as, Big Data and Algorithms, Disease and Drug Discovery, Next Generation Sequencing and Omics Science. The conference enabled participants to meet with experts from all walks of life for the advancement of science. It also helped me network with the most successful academics and researchers around the world.

I heard many very good talks and met many new people, and so I found the whole conference to be really inspiring. Many phenomenal presentations were delivered by eminent speakers around the world including Dr Arne Elofsson, Stockholm University, Sweden, on "*Protein*

structure predictions using direct coupling analysis and deep learning". There were more than 150 posters on several scientific problems and along with 60 oral presentation on the accepted research publications.

I presented a poster entitled "*Exploration of Heterotetrameric Structure of Wheat ADP Glucose by Investigating Subunit Interactions: Molecular Dynamics and Mechanics Approach*", which revealed the most favorable dimers for the formation of the energetically stable heterotetrameric structural model of the wheat AGPase. This work needed to be shared with the entire scientific community. I also received invaluable feedback from participants, which will be beneficial for improving my work and getting it published in peer review journals.

There were many exciting and memorable events filled with enlightening interactive sessions. By the end of the conference, I felt equipped and inspired to share and apply the new suggestions and learning in our current and future research. Moreover, the conference was very interesting and stimulating for me, not just in terms of its content, but the participants and wonderful hospitality as well. Thank you again for organizing this very successful conference. It was a fruitful and amazing time for me and I am looking forward to InCoB2019 in Jakarta.



InCoB2018 : *From My Eyes*

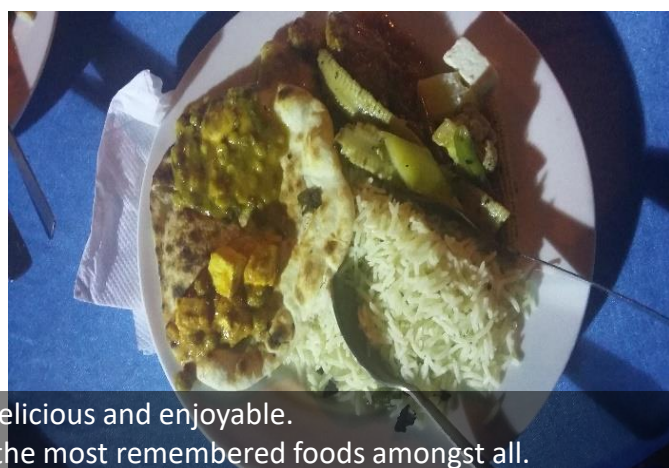
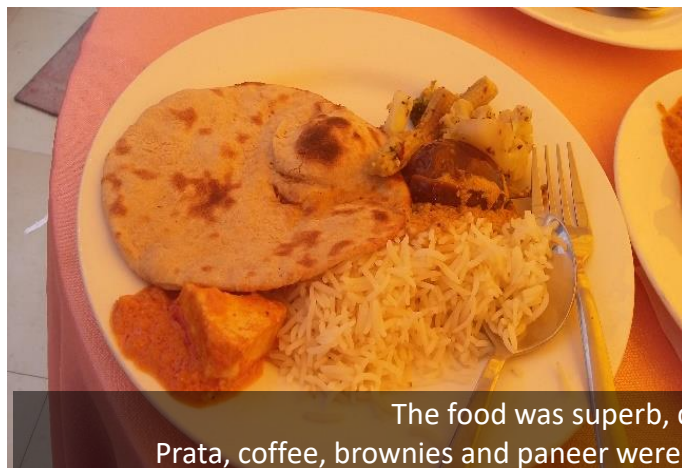
By: Shuhaila Mat Sharani, UKM, Malaysia

Ever since I heard of InCoB conference in 2015, I decided to seize the opportunity to join InCoB in Singapore in 2016. Within the following two years, I again participated in another InCoB conference in 2018 which was held in New Delhi, India. I began my application by submitting a full conference paper on 20 April 2018 under guidance from my supervisor, Assoc. Prof. Dr. Mohd Firdaus Raih. After receiving reviews from the peer review committee, I proceeded with a visa application in liaison with High Commission of India at Kuala Lumpur. Subsequently, my visa was approved and my journey to India, The Land of Diversity began. During my 5-day stay in New Delhi, I managed to meet and make a number of new friends.



It is fascinating to meet colleagues from different part of the world that shares the same passion and interest with me, and I am sure to make use of the connection made for the advancement of my career.

Upon arriving, we were welcomed by the friendly committee members from Jawaharlal Nehru University (JNU). In particular, Vikrant helped introduce us to the All India Council of Technical Education (AICTE). Vikrant was very helpful in arranging the transportation for us participants. Thanks to their assistance, we managed to get back to our accommodations and to the conference safely.



The food was superb, delicious and enjoyable.
Prata, coffee, brownies and paneer were the most remembered foods amongst all.

I had the opportunity to talk with other researchers during the poster session, in particular the Molecular dynamic simulation by Ravinder and motif identification by Priya. The most memorable keynote speaker that I remember is Prof Kenji Mizuguchi who shared about data integration and computational systems towards rational drug discovery. Prof. N Srinivasan shared about structure, flexibility and energetics of domains in multi-domain proteins that are influenced by the presence of other domains. I myself presented my work on *“Computational discovery and annotation of conserved small open reading frames in fungal genomes”*. I thank all the reviewers and editors from BMC Bioinformatics for a really helpful review of my paper. The paper was published on 4 February 2019 [<https://doi.org/10.1186/s12859-018-2550-2>].

This whole experience would not have been possible without the financial aid provided by InCoB. I was made aware of such an opportunity upon reading it on the conference website. I submitted my application, and was delighted when I received the notification of the Travel Fellowship award through email. I am really thankful for the opportunity to receive the travel award, which really helped me get to InCoB in New Delhi, India.



Lastly, I look forward to join the next InCoB conference at Jakarta, Indonesia, making this my third time participating in InCoB.

Terima kasih.

International Symposium on Bioinformatics 2018 (InSyB2018), Perdana University

By: Yam Wai Keat, Perdana University, Malaysia

The International Symposium on Bioinformatics 2018 (InSyB2018), a sister event to APBioNet's International Conference on Bioinformatics (InCoB), was held from 20-21 December 2018 at Perdana University, Malaysia. It was co-organised by MyBioInfoNet and Perdana University, supported by APBioNet and sponsored by YottaSoft and Alterquo. The event was in its second year after the successful inauguration of the 1st InSyB hosted by Universitas YARSI at Jakarta, Indonesia in 2017.

InSyB focuses on showcasing the best of thematic bioinformatics research among students, post-doctoral, and young researchers, interspersed with keynote and plenary talks by established researchers and luminaries in the field. Two renowned scientists from India, Professor N. Srinivasan from the Indian Institute of Science (IIS) and Prof R. Sowdhamini from the National Centre for Biological Sciences, were invited as Keynote Speakers to share their research work and scientific insights.



Prof. N. Srinivasan from IIS, India during his keynote address

Four local speakers from various fields of bioinformatics were invited as Plenary Speakers to share on their research; they were Assoc Prof Dr Zeti Azura Mohamed Hussein from Universiti Kebangsaan Malaysia (UKM), Assoc Prof Dr Mohd Firdaus Mohd Raih (UKM), Dr Sorayya Malek from University of Malaya (UM), and Dr Pawel Suwinski from Malaysian Genomics Resource Centre (MGRC) Berhad. Additionally, Mr Nicholas Low, from the STI Capital holding Group Co. Ltd, was invited as Industry Speaker to share on the latest entrepreneurship developments in technology.



Group photo with all participants

A total of 98 registered participants from various local and regional (Indonesia, Singapore and India) public and private universities, research institutions and industries attended the event. A total of 13 oral presentations and 22 poster presentations were witnessed by the participants.

InSyB2018 also witnessed the inaugural launch of MyBioInfoNet, a non-profit entity dedicated to serve as a networking platform for Malaysians or non-Malaysians, within or outside Malaysia, with interest in growing bioinformatics in the country. MyBioInfoNet aims to work closely with local bioinformatics organisations, associations, groups or other relevant outfits in promoting the greater good of bioinformatics in the country. Their mission is to pioneer the growth and development of bioinformatics awareness, training, education, infrastructure, resources, and research in Malaysia. InSyB2018 saw the Memorandum of Understanding (MoU) signing ceremony between MyBioInfoNet and APBioNet. As its new affiliate, APBioNet will provide assistantship to MyBioInfoNet towards its mission of promoting bioinformatics in Malaysia.



MoU signing between Chairperson (Dr. Yam Wai Keat) of MyBioInfoNet and President of APBioNet (Assoc. Prof. Dr. Mohammad Asif Khan)

InSyB2018 ended on a high note, with Best Oral Presentation and Best Poster Presentation awarded to Ms. Farah Najihah Isa'ali from Universiti Teknologi MARA (UiTM) and Ms. Salinii Nair Sukumaran from Universiti Putra Malaysia (UPM), respectively. They were each presented with a gift and a certificate of achievement. We thank all the participants for their involvement and hope that they benefited immensely from InSyB2018.

GOBLET AGM 2018

By: Mohammad Asif Khan, Perdana University, Malaysia

The 2018 Annual General Meeting of the Global Organisation for Bioinformatics Learning Education and Training (GOBLET) took place from the 6th to 8th of November in Toronto, Ontario, Canada. The meeting marked the sixth AGM of the organization, since establishment in 2012.

The AGM agenda included a Bioschemas and FAIR training workshop, aiming both to build on the GOBLET-ELIXIR collaboration (developing guiding principles & standards for sharing training information) and to discuss GOBLET's contribution to a future community publication with ELIXIR. The business meeting & Bioschemas workshop were followed by a hands-on workshop for high-school teachers, as part of the Science Teachers' Association of Ontario (STAO) 2018 Conference.

The meeting was hosted by Ann Meyer and Michelle Brazas, and took place at the Ontario Institute for Cancer Research (OICR), in the heart of Toronto. The meeting was attended by member representatives from Europe, Africa, Asia, Americas, as well as Australian (via video link). APBioNet was represented by its President, Dr. Mohammad Asif Khan, his second time after AGM 2017.



Dr. Khan presented a proposal to host AGM 2019 in Jakarta, Indonesia as a co-located event with APBioNet's flagship International Conference on Bioinformatics (InCoB 2019). The proposal was received with enthusiasm and formally approved. The minutes of the AGM are available here <http://bit.ly/gobletagm2018toronto>.

Thanks to the efforts of the local organiser, Ann Meyer and Michelle Brazas from OICR, the meeting ran seamlessly, with plenty of time for reflection on the progress of GOBLET, and fruitful discussions about the plans of the society for the coming years. After the AGM on the first day, the group spent time on defining Bioschemas for bioinformatics training, now available at <http://bioschemas.org/groups/Training/>.

As a Gold member, APBioNet has the potential to shape the future of GOBLET and to leverage its collective expertise in bioinformatics training to further APBioNet's mission, in particular in Asia-Pacific. GOBLET's coming to Asia for the first time in 2019 is a major step forward in this direction.

APBioNet will use this opportunity to get members actively involved in GOBLET, which provides a great environment for bioinformatics trainers and educators to network, share expertise and support each other's efforts. We look forward to the first GOBLET AGM in Asia to be held in collaboration with Universitas YARSI in Jakarta, Indonesia from September 9-10.

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COMMUNITY OUTREACH

Eligibility to represent APBioNet at key meetings, AGM and events as official delegates

Myanmar Bioinformatics Outreach

By: Khang Tsung Fei, Universiti Malaya, Malaysia

Straddling the crossroad between India, Indochina and China, Myanmar is a nation of tremendous potential - its natural resources are abundant, its trade has greatly opened up in recent times, and its rich biodiversity is one of the least explored in the world. Moreover, its diverse human populations holds valuable links to the puzzle of human migration history into Asia. In the decades of isolationism following military stewardship in the sixties, two generations of Myanmar's biologists grew up without the benefit of access to knowledge in important advances in molecular biology, which their more fortunate regional counterparts have. As a result, steps to lift local biology research and instructional standards to gradually be on par with regional standards would be a welcome development that benefits the worldwide scientific community, as this would open up opportunities for international research collaboration and demands for scientific services.



As an effort to plant the seeds of growth of bioinformatics in Myanmar, APBioNet reached out to the community of biology researchers in Myanmar by funding a five day workshop from 24 to 28 December, 2018, at the Yangon Research Center. A total of thirty faculty members from the Department of Zoology and another ten postgraduate students attended the five-day workshop, which was conducted by Dr Khang Tsung Fei (University of Malaya, Malaysia) and Dr Maurice Ling Han Tong (Management Development Institute of Singapore / Perdana University, Malaysia). The local organising committee was led by Prof. Dr Kay Lwin Tun who is the head of the Fisheries and Aquaculture Laboratory. On the first two days, the attendees learned about the fundamentals of molecular biology of the gene. This was followed by information search in GenBank, and using BLAST to retrieve DNA or protein sequences that are related to a query sequence of interest. Day three and four were spent on learning about sequence alignment, its principles and application in phylogenetic inference. On the fifth day, the students worked in small groups on three capstone project topics where they attempted to apply skills and concepts learned during the workshop to develop insights into real research problems. At the end, students gave short presentation of their findings with feedback from the instructors.

This workshop is a timely development in the modernisation of biological education research and teaching at Yangon University, as their faculty embrace upskilling to bring about gradual incorporation of modern elements into its curriculum, where reforms are needed both in contents, delivery and mode of learning. Importantly, through this activity Myanmar biologists have also gained access to the wider network of bioinformaticians in the world through their contact with the two instructors. APBioNet congratulates the hosts for this exciting development and will continue to be a force for bringing positive changes to the bioinformatics landscape of developing countries in the Asia Pacific region.



Dr. Maurice Ling and Dr. Khang with the local organiser

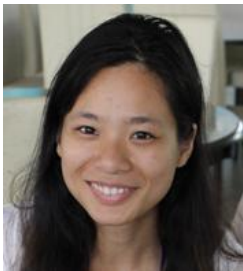


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