

NEWSLETTER

Society of Crystallographers in Australia and New Zealand

SCANZ PRESIDENT REPORT



It has been sometime since my last President's Report and there are a lot of exciting things happening in our Society that I'm pleased to share with all of you. Firstly, I would like to thank all members of SCANZ who attended the IUCr conference in Hyderabad, India in August. It was an exciting meeting, particularly for SCANZ, not least of all because we were successful with our bid to host the 26th Congress and General Assembly in Melbourne in 2023. I especially want to thank Michael Parker for leading the bid and his excellent presentation to the General Assembly on behalf of Australia. We have a lot of work ahead of us planning the conference, which I'm confident will be as successful, if not more so, than the last IUCr conference held in Perth in 1987.

Additionally, Australian and New Zealand crystallographers featured highly at the conference, not only in their science, but also in their activities within the International Union. A special congratulation is extended to Jenny Martin who was elected to the 10-person IUCr Executive for a 6 - year term. Additionally, we thank Mitchell Guss for his 6 - year service on the IUCr Executive. A number of SCANZ members were appointed or reappointed as Members of IUCr Commissions, attesting to the recognition of their standing in, and dedication to, their fields. Remarkably, SCANZ is now represented on almost every Commission, highlighting the breadth, depth and profile of our membership.



<http://scanz.iucr.org/>

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SCANZ PRESIDENT REPORT

Alison Edwards (Structural Chemistry)
Brendan Kennedy (Powder Diffraction)
Chris Chantler (XAFS)
Duncan McGillivray (Small-Angle Scattering)
Elliot Gilbert (Small-Angle Scattering)
Janet Newman (Crystal Growth and Characterization of Materials)
Laure Bourgeois (Electron Crystallography)
Maxim Avdeev (Magnetic Structures)
Santosh Panjikar (Crystallographic Computing)
Siegbert Schmid (Aperiodic Crystals)
Vanessa Peterson (Neutron Scattering)
Alice Vrielink (Biological Macromolecules)

Additional outstanding news came to us all early in October with the announcement of the 2017 Nobel Prize in Chemistry. We celebrate the success of cryo-electron microscopy for high resolution structure determination of biomolecules in solution, made possible by the outstanding contributions of Nobel Laureates, Richard Henderson, Jacques Dubochet and Joachim Frank.

More locally I would like to congratulate Peter Colman who earlier this year was appointed Companion of the Order of Australia and Jenny Martin who was elected to the Australian Academy of Science. Both accolades are well deserved recognitions of two excellent structural scientists.

The Crystal31 conference (December 3 – 7) to be held at Bunker Bay Resort in the Margaret River region of WA is quickly approaching. I hope you have all submitted abstracts and are soon to register. I particularly want to thank the work of the Program Committee, led by Chris Sumby, for putting together an excellent line up of speakers across a wide range of diffraction science. Please visit www.crystal31.com for more details.

Also thanks to Helen Maynard-Casely and Ulrike Troitzsch for taking the initiative to organize a public lecture at the Ngilgi Caves in WA prior to the Crystal31 conference. This is an excellent opportunity to talk about the science of crystallography to the general public. The lecture is scheduled for December 3rd and it is entitled “Science at the Caves”. The focus is to explore the connections between crystals and caves. Hands on demonstrations are also being planned. Helen has said that she hopes such talks will be a regular event for Crystal meetings.

That's all from me for now. I look forward to welcoming you all to beautiful WA and Bunker Bay in December.

Alice Vrielink
SCANZ President

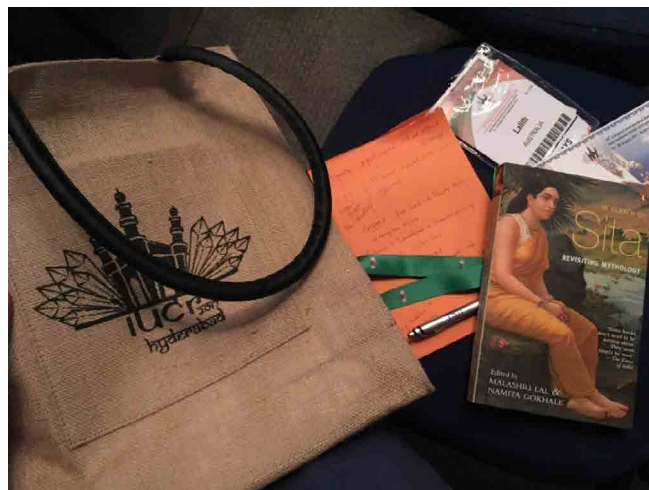


IUCr 2017 MASLEN SCHOLARSHIP REPORTS

Dear SCANZ committee,

At first, I would like to thank my supervisor Prof Bostjan Kobe for his on-going support and all the members of the SCANZ committee for the award of a Maslen scholarship to attend the IUCr 2017 conference.. I would like to share my experience with IUCr 2017 conference that happened from 21-28 August 2017 in Hyderabad, India.

The flight journey was pleasant and it took only 14 hrs to reach India. It was great that I, along with friends in our lab booked for a one stop only flight that goes via Singapore. The climate in Hyderabad when we landed was not as bad as we expected because it was monsoon time. As we booked our accommodation through the conference the first place we went is Infosys employee care campus where our rooms were allocated. The organizers received us with pleasure and provided facility to finish the registration process such as ID card and bus shuttle time tables to reach the conference venue (see Pic 1).

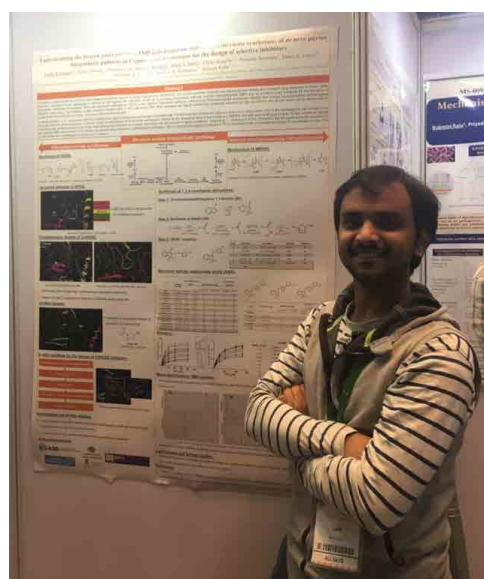


Picture 1: Conference brochure received at IUCr 2017

The first day of the conference started with award of Ewald prize to Prof Tom Blundell for his great efforts and contributions to the field of crystallography and fragment based drug discovery. The award ceremony was followed by his plenary lecture in which he shared his experience when he started his post-doctoral position with Nobel laureate Prof Dorothy Hodgkin. He also highlighted the importance of crystallography for drug discovery and a project from his company Astex about the anti-cancer drug Ribociclib that was recently approved by FDA. This lecture impressed me because my PhD project is also aimed at the utilization of crystallography and drug discovery for development of novel antifungals.

I got the opportunity to a present poster on the 22nd of August and the conference committee provided sufficient time for interaction between presenters and attendees during the poster sessions (see Pic 2). However, the place provided for posting posters was very congested which might be improved for later sessions. The e-poster concept introduced for the first time in IUCr 2017 was successful and it was a good opportunity to re-visit the poster for someone interested to get in to topic.

There were also many interesting plenary and microsymposium lectures that I had attended and one among them was on Small Angle X-ray Scattering (SAXS) by Prof Dmitri Svergun. I was not very familiar



Picture 2: Myself presenting poster at IUCr 2017

with SAXS before but Prof Dmitri planned his lecture from the basics of theory so that a beginner could also understand this technique. He also introduced many programs and databases that help for analysis of data from SAXS and are developed from his lab at EMBL.

Another interesting exhibition at IUCr 2017 was the model of crystal structure of sodium chloride (**see Pic 3**). It was great opportunity to meet the maker and Guinness book of world record awardee Dr Robert Krickl and listen about his efforts and thoughts for making this NaCl crystal model.

Many thanks to SCANZ for providing me with the opportunity to attend this conference.

With kind regards,
Lalith Kummari
University of Queensland

Picture 3: Myself and
Dr Robert Krickl with
model of crystal
structure of sodium
chloride



IUCr 2017 MASLEN SCHOLARSHIP REPORTS

I have attended the 24th Congress and General Assembly of the International Union of Crystallography at the Hyderabad International Convention Centre from 21st August 2017 to 28th August 2017. This congress had many events such as 3 plenaries, 40 keynotes, 119 microsymposia, 6 workshops, regular and e-posters, software fayre, commercial exhibits and some parallel programs on science related matters. They were very useful for me because most of these were related to my research work. This was a conference with plenty of the latest crystallography research in 9 parallel sessions.

The workshop on X-ray Absorption Spectroscopy for Crystallographer held on 21st August at this congress was extremely useful as it was directly related to my current research work. This refreshed my basic knowledge in the X-ray Absorption field. Not only that but also this was an opportunity for me to be aware of many methods and techniques of analyzing X-ray Absorption data. And also this workshop helped me to solve some of software problems I faced when analyzing data. Moreover, this provided me with an opportunity for learning a number of applications in this field. This workshop had a session of sharing experience and opinions of experts in this field and it was a great chance to interact with them. It was also a motivation for a fresher like me.

In this conference I had an 15 minutes oral presentation which was a part of the Microsymposium on 26th August 2017. I consider attending this conference and presenting my research work as an enormous opportunity for me. The feedback I received on my presentation gave my research a boost. The discussions that occurred during and after the presentation would yield valuable suggestions for moving forward.

There was a poster session which was beneficial for me. I followed many posters which were related to my research work. The e-poster session was helpful to review many posters and was a really effective method. I obtained more details about some of the latest modifications to several sorts of crystallography equipment from industrial representatives at the conference. Different talks in microsymposia helped me to learn many new techniques in crystallography. Attending these talks brought me up to date with the latest findings in my research field. I could have a sense of what others close in my field are doing. I think, enjoying a conference can provide an extra

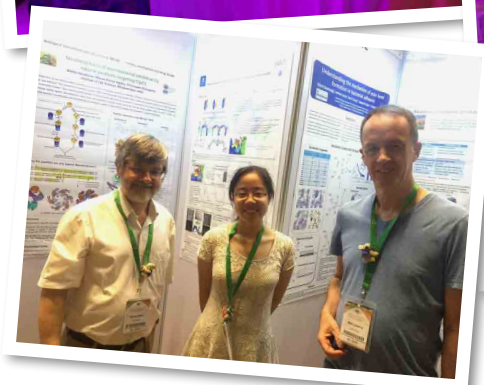
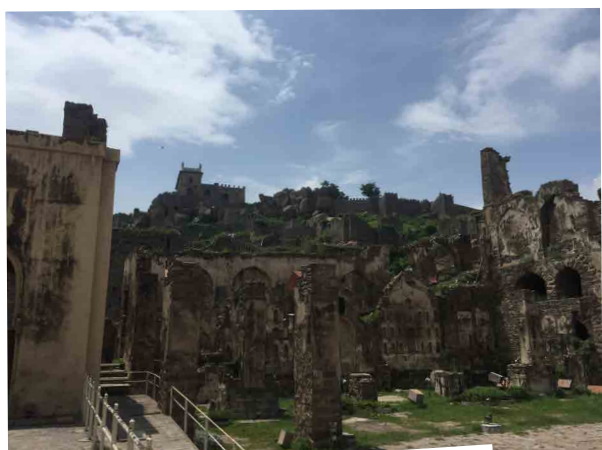


what others close in my field are doing. I think, enjoying a conference can provide an extra motivation to work hard at any research.

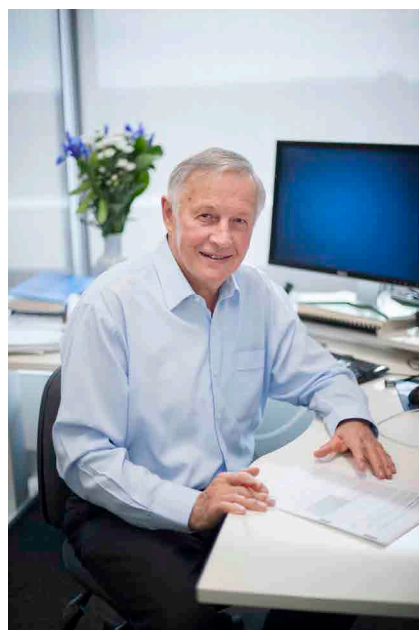
Attending this conference is an excellent opportunity for me as it was an international conference. Networking with conference attendees was one of my important gains of participating this event. It was a great opportunity to establish close relationships with other researchers in my field. I hope building up a scientific network will yield benefits in the form of scientific collaborations, recommendation letters, postdoc appointments, job opportunities etc.

Thus I believe, attending this conference and making the most of it was one of important investments in my research work. Also, I would like to acknowledge my supervisor, Prof. Christopher Thomas Chantler for his support and guidance, the University of Melbourne and the SCANZ for their generous support.

Ruwini Supeshala Kumari Ekanayake,
The University of Melbourne.



Colin Ward – 1943 -2017



It is with sadness that we note the passing of Colin Ward on March 24th 2017. Colin initiated and led a program of work to determine the 3D structures of the Insulin Receptor and EGF receptor at CSIRO and then later at WEHI. For more information on Colin's life and contributions to Australian Science please see "Vale Colin Ward - A Leader in Receptor Structural Biology" published in Frontiers in Endocrinology, May 2017, Volume 8, Article 95.

SCANZ COMMITTEES



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SCANZ
WWW.CRYSTAL31.COM



CRYSTAL 31
the 31st Conference of the Society of
Crystallographers in Australia and New Zealand
Pullman Bunker Bay, Western Australia
3 - 7 December 2017

REGISTRATION NOW OPEN

On behalf of the Conference Chair, Alice Vrielink, and the Organising Committee we invite you to attend CRYSTAL 31. The conference will be held at the Pullman Bunker Bay Resort in Western Australia from Sunday 3 to Thursday 7 December, 2017.

Details are available on the website <http://crystal31.com/>

[REGISTRATION for CRYSTAL 31 is open.](https://crystal31.com/registration/)

To register <https://crystal31.com/registration/>

[Early registration closes on 6 November](#)

Accommodation reservations – please book directly with the Hotel via
<https://crystal31.com/accommodation/>

We look forward to seeing you in Bunker Bay

Sally Brown, Conference Secretariat
PO Box 108, Kenmore, QLD 4069, Australia

Science in the Caves

SCANZ has a great history of holding our domestic meetings, the CRYSTALS series, in regional locations. This gives us a fantastic opportunity to hold outreach events promoting crystallography to an audience who get little in the way of science events traditionally (compared to Australia's urban centres). We'll be kicking off this new undertaking with 'Science at the Caves', a mini-science festival to be held at Ngilgi Caves on the 3rd December from 2 pm – a fantastic cave system close to the Bunker Bay resort. With the aim to explore the connections between crystals and caves, we'll have talks from invited speaker Ulrike Troitzsch (ANU) on her coral research (the starting story for calcium carbonate) and a local cave guide – as well as hands-on activities demonstrating crystallography to everyone. Supported by the conference chair and SCANZ executive, the hope would be to build up expertise in the crystallography community, so we can make for a successful outreach program to accompany IUCr 2023 in Melbourne. We'll talk more on this during CRYSTALS 31, including reporting at the AGM about 'Science at the Caves' - anyone who would like to be involved in this wider initiative please get in contact with Helen Maynard-Casely (helenmc@ansto.gov.au).





ANSTO User Meeting

2017

Shine a light on
what's important to you.

Wednesday 22 November - Friday 24 November 2017

National Centre for Synchrotron Science

Advanced Materials	Technique Development
Biological Systems	Magnetism and Spectroscopy
Earth and Environment	Nuclear Techniques
Structural Biology	Soft Matter
Surfaces and Thin Films	Nanomaterials
Radiotherapy	Nanotechnology
Industry and Innovation	Cultural, Heritage and History

EMAIL

AUM2017@ansto.gov.au

WEBSITE

ansto.gov.au/usermeeting2017

Joint meeting incorporating the Australian Neutron Beam Users Group (ANBUG) and the Australian Synchrotron





AUCKLAND

WHERE MINDS MEET

ASCA 2018 CRYSTAL 32

December 2-5 2018 | Auckland, New Zealand

ASCA 2018 Crystal 32

	CONFERENCE HOST	University of Auckland
	DATE	2-5 December 2018
	VENUE	University of Auckland Owen G Glenn Building, 72 Grafton Road, Auckland, New Zealand
	CONFERENCE WEBSITE	www.asca2018.org

We warmly invite you to ASCA 2018/CRYSTAL 32 a combined conference of the Asian Crystallographic Association (AsCA) and the Society of Crystallographers in Australia and New Zealand (SCANZ). Auckland provides a truly Pacific venue, with its beaches, harbour and islands.

The program will showcase outstanding science from Asia, Australia and New Zealand, and from around the world, and will be presented in three streams covering diverse topics in structural biology, chemical crystallography, crystal engineering, materials science, physics and fundamental science, and methods including instrumentation, techniques and computation.

The venue at the University of Auckland is an award winning facility and is in the centre of Auckland city, nearby to popular shopping and dining areas, and surrounded by an array of accommodation options. During your time in Auckland we aim to highlight our famously friendly and relaxed "Kiwi" culture and lifestyle, but also encourage you to have your own unique New Zealand adventure – or simply to find a quiet beach and escape the world.

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