

#### 28.11.13 Thompson Prize Night 2013

The Thompson Prize Night was held on **Thursday, 28th of November, 2013** at the Centenary Institute, hosted by Pep Font. For more details please go [here](#).

#### 19.07.-21.07.13 ECPM13 Meeting

The East Coast Protein Meeting was held in Coffs Harbour from 19th July - 21st July, 2013 - a joint initiative of the Sydney Protein Group and the Queensland Protein Group. Please go [here](#) for more details and pictures.

#### 29.11.12 Thompson Prize Night 2012

The Thompson Prize Night was held on **Thursday, 29th of November, 2012** at the University of Western Sydney, hosted by Liza Cubeddu and Roland Gamsjaeger. For more details please go [here](#).

#### 20.08.12 Special Seminar at Macquarie University

There was a Special Seminar on Monday 20th August, given by Professor Roderick Hubbard. Rod is Professor of Structural Biology at University of York (UK) with joint appointment at Vernalis Pty Ltd (Cambridge). His talk was entitled: "**Perspectives in Fragment and Structure-based Ligand discovery**". Thanks to A/Prof Bridget Mabbutt who hosted this talk. Please see [here](#) for an abstract and a biography.

#### 15.06.12 SPG ECR Annual General Meeting (AGM)

An AGM was held on the 15th of June, 2011 as part of the ECR Symposium (see below). After many years of service, Jacqui Matthews has decided to step down from the post of SPG president. Under her leadership, the SPG has grown from strength to strength, expanding its network and number of events. The SPG would like to thank Jacqui for all the work that she has put into the society during her term as president. The AGM resulted in new appointments to the SPG committee. Liza Cubeddu will be the new president, Chu-Kong Liew the Secretary, Ben Crossett remains Treasurer and Roland Gamsjaeger remains Webmaster. Please see [here](#) for details.

#### 15.06.12 SPG ECR Symposium

The symposium was held Friday, 15th of June, 2011 at the School of Molecular Biosciences, Sydney University. There were 6 speakers (all early career researchers) competing for a guaranteed speaking slot at Combio later this year. All the speakers gave excellent talks, making it a difficult decision for the Judges (thanks to Ian Dawes, Bridget Mabbutt and Adrienne Grant, who dedicated their time to the event). In the end, Marylene Vandevenne (U Sydney) prevailed and will have the chance to present her work on zinc fingers to a wider audience.

#### 26.11.11 Thompson Night 2011

The Thompson Night took place on Nov 24th, 2011. Please go [here](#) for details about the event.

#### 15-17.07.11 ECPM 2011

The ECPM was held again in 2011 between 15th-17th of July, 2011. This meeting was organized by the Queensland Protein Group (OPG) and was a short format conference that gave students and early career researchers an opportunity to present their work in a friendly social environment. The website can still be accessed along with other details [here](#). Please find a flyer [here](#).

#### 24.03.11 PDB roadshow

The European Bioinformatics Institute has been presenting a roadshow on the [PDB](#) in Sydney on the 24th March, 2011. The roadshow was presented by Dr. Sameer Velankar, who is responsible for scientific content and integration at PDB. Please see a for a more detailed flyer [here](#).

#### 25.11.10 Thompson Night 2010

The Thompson Night took place on Nov 25th, 2010. Please go [here](#) for details about the event.

#### 25/26.11.10 Special Seminars

**25.11.:** Just before the SPG Thompson Prize (see above), Prof Bostjan Kobe was talking at [Macquarie University](#) about '**Molecular basis of protein transport into the nucleus: snakes and ladders**'. Bostjan is well known to a lot of you, but if not: he is an **ARC Federation Fellow** at the School of Chemistry and Molecular Biosciences/Centre for Infectious Disease Research at UQ. His group is broadly interested in understanding the structural basis of molecular interactions and inferring function from structure. One focus of his group is targeting proteins involved in bacterial, viral and fungal pathogenesis, with a long-term goal of developing new therapeutics, particularly through structure-based drug design approaches.

**26.11.:** Dr Chris Tate, a group leader at the MRC Laboratory of Molecular Biology (Cambridge, UK) was giving an exiting talk about '**Conformational thermostabilisation of integral membrane proteins and structure determination**' in the [Victor Chang Cardiac Research Institute](#). Please see [here](#) for more information about Chris and an abstract of this talk.

#### 28.10.10 Young and Fresh Meeting 2010

The 'Young and Fresh Spring Meeting' of the Sydney Protein Group (SPG) took place on the afternoon of October 28th, 2010 at the Quad at the University of Sydney (sponsored by [Sapphire Bioscience](#)). This meeting has showcased up-and-coming local researchers and encouraged collaborations/dialogue. Please download a program [here](#) and the chosen abstracts [here](#).

#### 29.7.10 Talk by Juliet Gerrard

Professor Juliet A. Gerrard from the University of Canterbury, Christchurch NZ, was giving a special seminar on the 29th of July 29 at Macquarie University. Prof Gerrard's research is interdisciplinary, cutting across biochemistry, chemistry, health, agricultural and food science and biomaterial design. It also incorporates a full spectrum of applied and fundamental research. Please click [here](#) for an abstract.

#### 15.2.10 Talk by Jim Naismith

Prof. Jim Naismith, a renowned structural biologist (crystallography) from the Biomedical Sciences Research Complex, University of St Andrews, UK gave a talk at Macquarie University on Monday 15th Feb, 2010. He talked about conformational states in the membrane protein MscS and the use of in situ monitoring of these states as a robust broadly applicable approach to characterising conformational states of membrane proteins. Please click [here](#) for an abstract and a short CV.

#### 26.11.09 Thompson Night 2009

The Thompson Night took place on Nov 26th, 2009. Please go [here](#) for details about the event.

#### 25.08.09 Special Seminars

On Tuesday 25th August 2009 we had a pair of special seminars from two Germany-based researchers. Eckhard Hofmann from Ruhr-University Bochum gave a talk entitled "Light Harvesting by Carotenoids: Study of the Peridin-Chlorophyll a-Proteins of Dinoflagellates by X-ray Crystallography and Spectroscopy" in which he described his groups's efforts to uncover the underlying mechanisms of energy transfer from light harvesting proteins towards chlorophyll molecules. Andrew Torda, formerly from Australia but now based at the University of Hamburg, spoke on "RNA structure, design, mean fields

and their abuse" telling us several stories about how he is transferring his expertise in protein structure analysis to the analysis and prediction of RNA structure. We had a great turn out, with a capacity crowd at the School of Molecular and Microbial Biosciences at the University of Sydney.

### 31.07.-02.08.09 ECPM09 meeting

The East Coast Protein Meeting was held in Coffs Harbour from 31st July - 2nd August. A joint initiative of the Sydney Protein Group and the Queensland Protein Group. Please go [here](#) for more details and pictures. [Posted 23rd September, 2009]

### 13.02.09 Talk by Fred Allain

Fred Allain, a group leader at the prestigious ETH institute in Zurich gave a talk at MMB on Friday, 13th of February, 2009. He is an internationally respected structural biologist whose focus is on the analysis of post-transcriptional gene regulation. He has an outstanding publication record, with papers in Science, EMBO J and Nature Structural Biology in the last three years. His talk was titled 'Solution structure of Protein-RNA complexes and glycoproteins using NMR spectroscopy'. Please click [here](#) for an abstract of the talk or [here](#) for more details about Fred Allain.

### 06.02.09 Biomolecular Dynamics and Interaction Symposium

The Biomolecular Dynamics and Interactions Symposium was held at Bio21 in Melbourne on the Friday prior to the [Lorne Protein Meeting](#) (6th Feb). Speakers in this one day meeting included: Till Boecking (Harvard University), Dorothee Kern (Brandeis University), Betsy Komives (UCSD), Ron Kopito (Stanford University), and Murray Stewart (LMB, Cambridge) and Borries Demeler (University of Texas).

### 28.01.09 Special Seminar by gelcompany

Dr. Reiner Westermeier, Scientific Marketing Director of [gelcompany](#), gave a special seminar and demonstration about a new 2D electrophoresis technology on the 28th of January at Macquarie University. gelcompany is an Australian headquartered company that develops, manufactures and supplies innovative consumables and accessories for Proteomics, Genomics and Cell Biology. Please click [here](#) for a flyer of this event and contact [Dr. Yoon Choi](#) at gelcompany (02-9850-6267 or 0420-808838) for further information.

### 03.12.08 Thomson Night 2008

The Thomson night took place on Wed, Dec 3rd, 2008. Please go [here](#) for photos of the event.

### 13-15.11.08 GPCR Meeting

The GPCR (Molecular Pharmacology of G Protein-Coupled Receptors) was held on November, 13th - 15th, 2008 at the Victor Chang Cardiac Research Institute, Sydney. Speakers included Richard Henderson, Brian Kobilka, Tom Sakmar, Gebhard Schertler. For more details please go [here](#).

### 15.09.08 Membrane Protein Seminar

Two top structural biologists who specialise in membrane proteins, Professors So Iwata from Imperial College and Werner Kuehlbrant from the Max-Planck Institute for Biophysics gave a pair of special seminars at the Centenary Institute on Monday September 15th. So Iwata gave us a whirlwind tour of his high-throughput membrane protein structure determination facilities. Werner Kuehlbrant enlightened us about using electron microscopy as a tool for solving structures of big membrane proteins. Afternoon tea followed the seminars and provided an opportunity to meet the speakers. To find a flyer please follow this link [here](#). [Posted 9 October, 2008]

### 16.07.08 SPG Winter Meeting

The Sydney Protein Group Winter half-day meeting on the 16th July at Sydney University appeared not to have been overshadowed by the presence of the Pope in Sydney: the turnout was great, as was the line up of local protein biochemists presenting their work. The focus for this meeting was on Early Career Researchers, giving them a forum to present their research to the local protein community. Session 1 saw the opening presentations by Richard Grant ([Sydney University](#)) who gave an entertaining account about splicing regulation of a sub-class of post-transcriptional factors and the role of a novel factor, ZRANB2, in alternative splicing. Mark Larance from the [Garvan Institute](#) highlighted the use of a novel quantitative phosphoproteomic approach to identify a pathway of mRNA regulation downstream of Akt in the Akt kinase signal transduction cascade. He discovered that disruption of the pathway in knockout mice leads to a phenotype with dramatically reduced body fat and decrease in body mass. The final talk of the first session dealt with Multiple Reaction Monitoring, a new mass spectrometry technique which is rapidly becoming a popular method to quantitatively monitor tens of proteins in a complex mixture; but how well does it target the proteins you are aiming for? Jamie Sherman ([Macquarie University](#)) gave compelling evidence that, with the aid of a bioinformatics approach he has developed, it is possible to determine unique ion signatures giving the user confidence that the correct targets are being monitored. After the tea break, kindly sponsored by Invitrogen, the second session started with Daniel Kolarich ([Macquarie University](#)) telling us about the latest mass spectrometry techniques to profile the glycans found on antibodies. Oliver Pilak ([UNSW](#)) discussed his most recent results on the characterisation of chaperonins from the cold-adapted archaeon *Methanococoides burtonii*, and finally, Hanna Wacklin from [ANSTO](#) gave us a virtual tour of the new neutron facility at ANSTO and a fascinating insight into the structure and function of biological membranes using neutron reflection. Much appreciation goes to the ASBMB for their generous support of SPG meetings, and also to the speakers and participants who helped make it a successful meeting. You can find a poster of this meeting [here](#).

### 28.11.07 2007 Thompson Prize

The 2007 Thompson Prize was hosted at Macquarie University this year and attracted a particularly strong field of applicants. After five excellent talks, the judges deliberated long and hard (while everyone else enjoyed some food and drinks) and eventually pronounced George Craft from CMRI as the winner. The three Lorne Scholarships were won by Robyn Mansfield (USyd, GE Healthcare Scholarship), Lily Ting (UNSW, BioRad Scholarship), and Morgan Gadd (USyd, Greg Ratston Scholarship). For a more detailed report and photos, look [here](#).

### 09.10.07 Seminar by Martin Billeter

Prof. Martin Billeter, a leading exponent of the use of NMR spectroscopy to investigate macromolecular structure and function, gave a seminar in the School of MMB on Tuesday 9 October. Prof. Billeter worked with Nobel Laureate Kurt Wüthrich for a number of years, before moving to the University of Goteborg in Sweden, where he runs the NMR Centre and holds a Professorship in Biophysics. He discussed his recent work in a seminar entitled "Protein interactions and dynamics" [[view abstract](#)].

### 21.09.07 SPG pre-ComBio meeting

This year's pre-ComBio half-day meeting was held at Sydney University on Friday 21st September.

The meeting attracted scientists from a variety of Sydney research centres who were treated to a dazzling list of speakers. The first session, chaired by Joel Mackay, was dedicated to protein:RNA interactions. We were spoilt by having Jamie Williamson from Scripps (California, [www](#)) headlining the session. He enlightened us on the uses of NMR to study quite large viral capsid structures and other RNA:protein interactions. Jackie Wilce from Monash ([www](#)) told us about mRNA recognition by a poly(C)-binding protein involved in translation regulation and Oliver Rackham from the WAIMR finished off the session showing off his elegant trimolecular fluorescence complementation technique that allows the visualisation of RNA-protein interactions in living cells.

Session two (chaired by Richard Grant) kicked off with Murray Stewart, a world-expert on nuclear import (from the LMB in Cambridge, [www](#)), who kept us thoroughly entertained as well as telling us about his most recent findings on the molecular mechanism of the nuclear protein import cycle. We then heard from Tim Newsome (MMB at Sydney Uni) who shed some light into the intimate relationship between host and pathogen during poxvirus infection and the molecular mechanisms underlying the organization and control of the actin and microtubule cytoskeletons. Daniel Christ (from the Garvan) topped off the day's talks with a very neat presentation on the uses of antibody phage display as an in-vitro evolution tool. The meeting was followed by drinks at a local pub and the speakers were SPG-treated to some fine Thai food for dinner.

We would like to thank the sponsors for the meeting: Biolabs for the afternoon tea and Millenium Science, GE Healthcare, Biorad and ASBMB for their support. You can view the [program](#) for the afternoon, or see the [poster](#).

### 23.07.07 East Coast Protein Meeting 2007

The 2007 three day East Coast Protein Meeting was held at the Opal Cove Resort in Coffs Harbour. The meeting is a joint initiative of the Queensland and Sydney Protein Groups, and is primarily aimed at providing early career researchers from PhD to postdoc level with an opportunity to present their work that may not always be possible at larger meetings. This year, the meeting was organized by the Queenslanders – primarily Brett Collins, Jack Flanagan, Justine Hill, Thomas Huber, Bostjan Kobe and Lillian Sando.

There were two excellent plenary talks, to open proceedings Prof. Nick Dixon (University of Wollongong) discussed the termination of DNA replication by Tus, and on Friday Dr. Ashley Buckle (Monash University) presented work on the mechanism of GABA production by the GAD65 and GAD67 enzymes. These were the appetisers in a smorgasbord of talks by young researchers from all over Australia and even from across the channel in NZ and from as far away as New York. All the talks were of high quality and highlighted some of the excellent research being carried out by the people who actually make our labs run.

On Friday night we enjoyed a lively poster session and trade display followed by dinner, drinks and dancing and we were fortunately blessed with great weather for the whole meeting. A number of awards were given for both talks and poster presentations:

**Student posters** - Molly Clifton (USyd), with runners-up Matthew Breeze (UQ) and Melinda Tan (USyd).

**Student talks** - Mugdha Bhati (USyd), with runners-up Christophe Schmitz (UQ) and Janelle Hancock (OIMR)

**Non-student talks** - Josh Myline (UQ), with runners-up Charikleia Ioannou (University of Wollongong) and Chu Kong Liew (USyd).

Sponsorship for the meeting was provided by ASBMB, QCIF, the Australian Synchrotron, GE Healthcare, NuSep, Bruker and Spectra Stable Isotopes.





Chu Kong Liew accepts his runner-up award from Brett Collins



Melinda Tan with her poster prize bottle of wine.



Josh Mylne, winner of the best non-student talk prize, with Brett Collins.

### 23.07.07 Special seminar by Ian Wilson

On Monday 23 July, Prof. Ian Wilson from the Scripps Research Institute in California gave a special Sydney Protein Group seminar on his recent work. Prof. Wilson heads the Joint Center for Structural Genomics [www], an NIH Protein Structure Initiative production center, and his laboratory has published extensively in the area of structural immunology and structural virology. The seminar was held in the tea room on Level 4 in the School of Molecular and Microbial Biosciences. Ian gave a very interesting account of the new methods and techniques developed in his structural genomics program, and pointed out some of the new information that has been provided by these programs with some case studies and broad-brush statistical data [check out Ian's [Flyer](#)].

### 11.04.07 SPG Easter Meeting and AGM

To usher in autumn, the Sydney Protein Group held their ASBMB-sponsored Easter half-day meeting and AGM at the University of Sydney. During the AGM, Dr Jacqui Matthews was elected to the position of President, Dr Liza Cubeddu as Secretary & Dr Ben Crossett as Treasurer. The meeting was well received and attended by approximately 50 members; it focussed on bringing together local protein scientists and some new faces to the Sydney protein scene. With a well-earned afternoon tea break in between the two sessions, the audience heard some stimulating talks from five Sydney-based researchers: a recent recruit to Sydney, Rachel Murray (Children's Hospital Burns Research Institute) gave us a fascinating insight into the secretory pathway and its machinery in macrophages to ensure maximum cytokine secretion, while Mark Graham from the Children's Medical Research Institute discussed the characterisation of dynamin phosphorylation during synaptic vesicle endocytosis. Mark Molloy (Australian Proteome Analysis Facility, Macquarie University) introduced innovative proteomic approaches for biomarker discovery in colorectal cancer, Mark Raftery (Bioanalytical Mass Spectrometry Facility, UNSW) presented novel mass spectrometry methods to enrich for Cys-rich peptides from yeast cell lysates and David Gell (Molecular and Microbial Biosciences, University of Sydney) gave us a structural insight into the exquisite coordination of haemoglobin A synthesis via the alpha-haemoglobin chaperone AHSP. The organisers would like to thank the ASBMB for their generous support of the meeting, Biolab for providing the afternoon tea and also the speakers and participants who made it such a success full meeting.

### 29.01.07 Special seminar by Nathan Cowieson

Nathan Cowieson from the IMB in Queensland gave a very interesting seminar about high throughput methods for protein structure determination, describing new methods that have been developed in their lab for assessing candidate proteins, as well as some of the difficulties they have faced. The seminar was held at the University of Sydney on Monday 19 February at 10 am. Check out Nathan's [flyer with details](#).

### 09.01.07 Special seminar by Daniel Funeriu

Daniel Funeriu, one of the invited international speakers from the 2007 Lorne Protein Conference, will be giving an SPG seminar at the University of Sydney on Thursday 1 February at 4 pm. Check out Daniel's [abstract](#), and a [flyer with details](#). The seminar will be in LT2, Wilkinson Bldg.

### 09.01.07 Special seminar by Carol Robinson

Carol Robinson, a true pioneer in biological mass spectrometry, gave an SPG seminar at the University of Sydney on Thursday 25 January ([flyer](#) for details), as part of her trip to Australia to speak at the Lorne Protein Conference. Carol impressed us with descriptions of several new methodologies for investigating the structures of large protein assemblies in the mass spectrometer.

### 19.12.06 SPG Spring meeting and Thompson prize

The 2006 Thompson Prize was held in conjunction with the Spring Meeting of the Sydney Protein Group at the University of Sydney's historic Philosophy Room. Rob Baxter opened proceedings by reporting on recent work from his group at the Kolling Institute on profiling cancer samples using SELDI. He was followed by the first set of excellent talks from the Thompson prize finalists: Peter Wu (Cell free transcription/translation systems, ANU), Molly Clifton (Role of FOG-1 in gene expression, USyd) & Andrew Robinson (Gene transfer in bacteria, MQ).

After the tea-break and trade fair, we heard from the remaining two Thompson Prize finalists: David Jacques (Inhibition of Kinase A by Sda, USyd) and Mihwa Lee (Structure of dihydroorotase, USyd) before Nick Dixon rounded off the afternoon with a talk about protein-DNA interactions in replication termination. The Judges, Rob Baxter, Nick Dixon & Phillip Kuchel had the difficult task of picking an overall winner, who was David Jacques - an excellent finish to a very productive Honours year.

The winners of the Lorne Travel Scholarships were also announced during the mixer, and this year's Proteome Systems Ltd sponsored award went to Silke Henrich (USyd). The winner of the Bio-Rad sponsored award was Mugdha Bhati (USyd), and of the Greg Ralston Scholarship was Visaahini Suresham (MQ). Many thanks to the event sponsors: GE Healthcare, Bio-Rad, Proteome Systems, Invitrogen, Eppendorf, ATA Scientific, Qiagen, Shimadzu, Millipore, Sapphire Biosciences & John Morris Scientific and the organisers: Liza Cubeddu and Ben Crossett. Photos from the event are available [here](#).

### 02.08.06 Seminar by Glen Legge

On Wed 2 August (4 pm), Glen Legge, Assistant Professor, Department of Biochemistry, University of Houston, gave a seminar in the School of Molecular and Microbial Biosciences at the University of Sydney. The talk was entitled "Cytoplasmic Tails and Rossmann folds: The Ins and Outs of Cell Adhesion" [[view abstract](#)]. Glen is a structural biologist with a foot in both NMR and Xray crystallography camps. He originally hails from WA, but completed his PhD with Mark Bycroft and Alan Fersht and spent some time with Peter Wright at Scripps [[biosketch](#)].

### 18.05.06 Seminar by Bill Gelb

On 18 May, Bill Gelb from MicroCal in the US gave a seminar on applications of isothermal titration calorimetry. The seminar took place at the School of MMB, University of Sydney and kicked off with afternoon tea (sponsored by Beckman). Bill gave a nice explanation of the theory behind ITC and some examples of recent applications.

### 06.03.06 Special seminar - Juliet Gerrard

On Tues 14 March, Juliet Gerrard from the University of Canterbury gave a research seminar entitled "How can an understanding of the evolution of the quaternary structure in proteins inform antibiotic design?". The seminar was held in the School of MMB at the University of Sydney. Juliet treated us to a fascinating story of the structure and function of her favourite enzyme - dihydrodipicolinate synthase - and included some thought-provoking speculation on the nature of oligomeric proteins. You can see an [abstract](#) for the talk, and you can view Juliet's research profile [here](#).

### 07.12.05 Thompson Prize night

The 2005 Thompson Prize night, held at Macquarie University on 7 December, was a great success. Daniel Ryan won a tight contest, and George Craft, Molly Clifton and Mugdha Bhati picked up Lorne Scholarships. For a report and photos, have a look [here](#). The history behind the prize can be seen [here](#). A flyer for the evening is [here](#).

### 17.10.05 "New products" seminar by Bio-Rad

Dr Nelson Cooke from Bio-Rad US presented a seminar on new methods for protein purification and enrichment on Mon 17 Oct at 4 pm. The venue was the Tea Room in the [School of MMB](#) at the University of Sydney. See [flyer](#).

### 11.10.05 Special seminar by Prof. K. Muniyappa

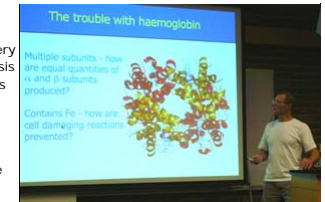
Professor K. Muniyappa, from the Indian Institute of Science (one of the top research institutes in India), presented a seminar entitled "The Role of Yeast Meiosis-specific Hop1 Protein in Chromosome Pairing and Recombination" in the [School of MMB](#) at the University of Sydney. He described a range of interesting recent results on the yeast Hop1 protein.

### 20.07.05 East Coast Protein Meeting 2005

The [East Coast Protein Meeting](#), a joint SPG/QPG initiative that was so successfully resurrected in 2003, was held recently at the [Opal Cove Resort](#) in Coffs Harbour (over the weekend of the 25-26 of June). The meeting, with 80 attendees, provided a forum for younger scientists to present their work orally - most of the talks were given by PhD or postdoc researchers. The meeting was a roaring success and thoroughly enjoyed by the participants, from all accounts. Many thanks must go to Philippa Stokes, Sharon Pursglove, Molly Clifton and Kate Quinlan for the superb job that they did in organizing the meeting.

### 13.12.04 Thompson Prize evening 2004

At this year's Thompson Prize evening (8 Dec.: CMRI, Westmead) we heard five very slick presentations [see [meeting flyer](#) for details] that highlighted some impressive data and gave rise to a very stiff competition. Only one Thompson prize can be awarded each year though, and the 2004 award was won by Kate Edwards from MMB at the University of Sydney (for her talk entitled: *A molecular link illuminates breast cancer mechanisms*), with Janet Deane getting a special mention. The other speakers were Stephen Graham (USyd), Mika Jormakka (UNSW) and Blair Nield (Macquarie University). The evening



was organized by Phil Robinson and Jane Seaman who arranged lots of drinks and nibbles and some delicious hot food after the event. Judges were Phil Robinson (CMRI), Bret Church (UNSW) and Russell Diefenbach (Westmead Millenium Research Institute).

#### 24.09.04 Pre-ComBio meeting 2004

On Friday 24th Sept, we held our spring half-day meeting, drawing on some of the international speakers from the recent **ComBio 2004** meeting in Perth. We had a great list of speakers - three internationals who came for ComBio and three local speakers. The meeting was held in MMB at the University of Sydney, and was followed by drinks and dinner at a local restaurant. The speakers and our sponsors are listed below, and you can also see the meeting [flyer](#).

**Hazel Holden**  
Uni. of Wisconsin ([www](#),  
[publications](#))  
Enzyme Structure and Mechanism

**Thomas Preiss**  
Victor Chang Cardiac Research  
Institute ([publications](#))  
Regulated Translation in Eukaryotes



**Andrew Robinson**  
Macquarie University  
Folded Proteins from the Mobile  
Metagenome

**Louise Brown**  
School of Physics, UNSW  
Troponin: the Muscle 'On' Switch  
(EPR/neutron scattering)



GE Healthcare



**Ivan Rayment**  
Uni. of Wisconsin ([publications](#))  
Myosin Proteins

**Jamie Williamson**  
Scripps ([www](#), [publications](#))  
RNA:Protein Interactions



#### 17.08.04 Special seminar

On Mon. 6th Sept., we hosted (at USyd) double-header seminars by Prof. Ian Wilson (FRS) and Dr Dennis Wolan, protein x-ray crystallographers from the Scripps Institute in California. Prof. Wilson is the Principal Investigator of a large team of scientists whose work is focussed on the structural biology of protein interactions of particular relevance to immunology [[pubmed](#)]. He is also involved in one of the major initiatives for structural genomics in the U.S. Dr Wolan is a senior researcher within this team, whose work has focussed on enzymes involved in purine metabolism, as drug targets [[pubmed](#)]. Both speakers gave very interesting talks focused on structural biology. Ian Wilson told us about the variety of mechanisms by which antibody-antigen interactions can take place, drawing on some of the many structures they have determined over the years, while Dr Wolan described work targeted on understanding the mechanisms of purine biosynthesis from a molecular viewpoint. View the event [flyer](#).

#### 05.08.04 Special seminar - Kirk Jensen

On Wed. 11th August, we hosted a seminar by Dr Kirk Jensen, an extremely accomplished young RNA researcher who has just been appointed to a senior lectureship at the University of Adelaide. Kirk has published recently in **Cell** ([twice](#)), **Science** and **Neuron** on the isolation and analysis of RNA-binding proteins. The seminar was held at the University of Sydney (School of MMB tearoom), and Kirk presented his recent results on the analysis of the RNA binding properties of the Nova and Hu proteins. The seminar was received very well by an audience of ~45 people, and a number of people had the opportunity to chat with Kirk throughout the day.

#### 07.08.03 Pre-Lorne Meeting, 2004

**Date:** Feb 4, 2004

**Location:** School of MMB, Uni. of Sydney.

**Meeting report:** We were treated to a series of excellent and varied talks, which covered a range of topics loosely based around protein structure/interactions and membrane proteins. Our two keynote speakers were David Eisenberg ([www](#))[[publications](#)] from the Howard Hughes Medical Institute who talked about domain swapping and amyloid formation, and Jacqui Gulbis from WEHI [[publications](#)] who showed us her recent structure of the KirBac potassium channel protein.

Jamie Vandenberg from the Victor Chang Cardiac Research Institute followed up on the theme of ion channel proteins, describing his recent work on HERG potassium channels. Fiona Stennard, also from the Victor Chang talked about Tbx-20 protein and its role in heart development. Dave Gell, from the University of Sydney, showed us how the alpha-hemoglobin stabilising protein interacts with its target, and Megan Maher, also from the University of Sydney demonstrated how dihydroorotase can bind its product and substrate simultaneously. After drinks we took the speakers out to dinner at a Vietnamese restaurant in Newtown.

This year's Pre-Lorne meeting was sponsored by [Roche Applied Science](#), who are promoting their range of products for Proteome Science. We would also like to thank Auspep, Lomb Scientific, Promega, Invitrogen, and ATA Scientific for additional sponsorship.

#### 29.01.04 Special seminar - Bill Gelb [[top](#)]

Bill Gelb, the president of MicroCal corporation based in the USA, presented a seminar on recent applications and advances in the use of calorimetry (both isothermal titration calorimetry and differential scanning calorimetry) in the life sciences. This talk was held in the School of MMB at the University of Sydney, and provided a very interesting update on recent uses of microcalorimetry in biological systems. Afternoon tea was provided by Beckman Coulter.

#### 01.12.03 2003 Thompson Prize night [[top](#)]

This night was a great success, and enjoyed by around 50 people. Details [here](#).

#### 07.08.03 Pre-ComBio Meeting, 2003 [[top](#)]

**Date:** September 26, 2003

**Location:** Victor Chang Cardiac Research Institute, Darlinghurst, Sydney.

**Meeting report:** The SPG Annual Pre-COMBIO Meeting was held in conjunction with the Victor Chang Cardiac Research Institute in the Garvan Building on the Afternoon of Friday 26th of September.

**Iain Mattaj**, from EMBL in Heidelberg, gave an excellent rundown on Ran-mediated nuclear trafficking and presented his latest work showing that Ran GTPase co-localizes with chromatin. **Peter Currie**, a recent addition to the ranks of Victor Chang, talked about skeletal muscle development in the zebrafish embryo and how that model can be used to understand various human muscular dystrophies. **Frank Caruso**, a Federation Fellow at the University of Melbourne, gave us a rundown of the amazing work that his group has been doing in terms of engineering nanoparticles, for example from layers of oppositely charge polymers that can be used for various biological application.

After tea, **Alistair Sim**, from the University of Newcastle, gave us some insights into specificity and subcellular targeting of protein phosphatases of which there are ten-fold fewer types than the corresponding kinases, but which must still target the same array of proteins. Finally, **Mitsu Ikura** from the University of Toronto showed the power of NMR in tracking many calmodulin-target interactions. His talk was amazing not only for his ability to unravel some of the complexities of calcium signalling, but delivered on top of an impossibly long flight from the east coast of Canada. The day was rounded off by dinner at a local restaurant in Darlinghurst.

The meeting was proudly sponsored by Roche Applied Science, who used the meeting to promote their [Rapid Translation System](#) for cell-free protein expression.

#### 27.06.03 East Coast Protein Meeting, 2003 [[top](#)]

**Date:** June 27<sup>th</sup> to 29<sup>th</sup> 2003

**Location:** Novotel Opal Cove Resort, Coffs Harbour.

**Summary:** The Queensland Protein Group and The Sydney Protein Group got together to host the East Coast Protein Meeting at the Novotel Opal Cove in Coffs Harbour this June. This conference has in the past been an excellent arena for established and young protein scientists to mix on an equal footing in a relaxed atmosphere, and this was the first time in 5 years this conference had been held. Most of the organization was done by the OPG people, and they did a superb job of running a smooth conference. Two keynote speakers, Vic Arcus from the University of Auckland and Manuel Baca from the WEHI in Melbourne, were invited and both gave excellent presentations on protein structure and phase display, respectively. A host of younger scientists gave most of the remaining presentations, and the standard was extremely high. The location was excellent (as you can see above), the weather was great and a very enjoyable time was had by all, judging from the responses of the participants. A number of [prizes](#) were also awarded to students and post-docs for the best presentations in each category.

#### 23.06.03 Seminar by Dr Vickery Arcus [[top](#)]

**Date:** Friday, 27 June, 11 am.

**Roche Applied Science**  
*The Art of Biochemistry*



**Location:** Room 551, School of Molecular and Microbial Biosciences, University of Sydney

**Title:** Going down the structural genomics pipeline to find function

**Summary:** Vic presented an extremely interesting talk on the structural genomics project that he has been involved in over the last few years. The structures that they had solved turned up quite a few interesting and thought-provoking issues, and Vic discussed a number of the nitty-gritty issues associated with such projects and with modern X-ray crystallography in general.

### 12.03.03 Seminar by Prof. Martin Stone [top]

**Date:** Monday 19 May, 5 pm.

**Location:** Tea room, School of Molecular and Microbial Biosciences, University of Sydney

**Title:** Chemokine receptor specificity: the molecular basis of leukocyte trafficking in inflammation.

**Summary:** Martin described his laboratory's multifaceted approach to understanding the molecular basis of chemokine-receptor specificity. NMR studies of isolated chemokines have revealed conserved structural and dynamical features of these small proteins, while cell-based assays of chemokine mutants and chimeras have indicated elements of the chemokines required for high affinity receptor-binding, activation, and/or specificity. These data were corroborated by analysis of chemokine binding to isolated elements of the receptors. The highlight of his presentation was some extremely exciting recent work, where his lab have designed, characterized and used small soluble proteins that mimic chemokine receptors. These mimics may turn out to be extremely powerful tools in the analysis of protein-receptor interactions in a wide range of systems.

### 31.03.03 Seminar on a new measuring technique for protein structure and function [top]

**Date:** 4 pm, Thurs. May 1

**Location:** Common room, Level 4, School of Molecular and Microbial Biosciences (Biochemistry), University of Sydney.

**Info:** A seminar was presented by the manufacturers of an interesting new technology soon to be introduced into Australia, the **Farfield Biosensor. Pre-Lorne meeting 2003**

We had a great day at the annual pre-Lorne half-day meeting (Thurs 6 Feb 2003), which was hosted splendidly by Russell and Eve Diefenbach at the Westmead Millennium Institute. **Art Horwich** (Yale) gave us a great account of his work in trying to understand the intricacies of how the GroEL-GroES system does its thing. **Lynne Regan** (Yale) showed us some of her very nice recent work in protein design - including building up proteins from small repeat sequences and using GFP as a protein interaction reporter. **Melanie Cobb** (Southwestern, MAP kinase signalling - [publications](#)) showed us how she has been unravelling the secrets of protein kinase signalling, and we had three local speakers from Westmead told us about their recent results as well. Afterwards, we retired to a local Paramatta restaurant to discuss the afternoon's talks. The food and wine were excellent and a pleasant evening was had by all!

### 28.06.03 Special Seminar by Prof. Angus Lamond

**Angus Lamond** is a pioneer in the analysis of multi-protein complexes involved in splicing and nuclear architecture. He worked in collaboration with the mass spectroscopy expert Matthias Mann at the EMBL to identify the components of the spliceosome and he is currently investigating the composition of nuclear features, such as the nucleolus and nuclear speckles. He gave a seminar in the **School of Molecular and Microbial Biosciences** (formerly Biochemistry) on Friday 28 June where he discussed his recent results in this area. The results they have had are extremely impressive and it will be interesting to see how this work proceeds over the next couple of years.

### 07.02.02 Pre-Lorne Meeting 2002

The SPG's annual half-day meeting preceding the **Lorne Protein Conference on Protein Structure and Function** was held at the Garvan Institute for Medical Research this on 7th Feb. this year. The line-up of speakers included John Moul, Phil Hogg, Neil Nosworthy, Bill Gelb, Maria Kavallaris and Adam Brymora. We were very grateful to **Beckman-Coulter** for sponsorship. In the first talk, Phil Hogg (UNSW) explained that extra-cellular proteins are often stabilized but unexpectedly the bonding is enzymatically regulated and this can have a major effect on the function of the protein. Hogg has purified and identified several of the enzymes involved and remarkably it turns out that different enzymes work on different targets. **Neil Nosworthy** (USyd) next described work on the structure and function of cofilin, and **Bill Gelb** (MicroCal, USA) provided a run down of the multiple applications of microcalorimetry. After a sumptuous afternoon tea provided by Beckman-Coulter, **Maria Kavallaris** (Children's Cancer Institute) explained proteomic approaches to identifying mutations in microtubule proteins associated with resistance to cancer treatments. **Adam Brymora** (CMRI, Westmead) described recent work carried out with Phil Robinson on protein complexes involved in mediating Ral/GTP signalling. The day finished with an excellent talk by **John Moul** (University of Maryland, USA) who detailed his analysis of the human gene mutation databases and put forward the striking proposal that most single amino acid substitutions that cause a phenotype do so by reducing the stability/folding of a protein rather than directly disrupting active sites or contact domains. Obviously work on the folding and structure of proteins will become even more topical as more genetic diseases are characterised. Drinks and dinner with the speakers followed at an excellent local restaurant with a distinctly French flavour.

### 21.11.01 Annual SPG Thompson Prize event [top]

A successful **Thompson Prize** Night was held at the Department of Biochemistry at Sydney Uni on 21 November 2001. Five excellent talks were delivered and congratulations are to be given to all speakers. The Thompson Prize was awarded to Amanda Nouwens from the Australian Proteome Analysis Facility at Macquarie University. A special commendation was given to Stephen Graham from the University of Sydney which also a great achievement.



**Thompson Prize finalists for 2001:** (From left). Anthea Newton, Stephen Graham, Kate Michie, Amanda Nouwens, Belinda Sharpe

**Lorne Travel Fellowships** sponsored by **Bio-Rad**, **Proteome Systems** and the SPG were also awarded on the evening of the Thompson Prize night and they were won by:

BioRad Prize **Raina Wong**  
 Proteome Systems Ltd Prize **Ann Kwan**  
 SPG Greg Ralston Memorial Prize **Stephen Graham**



Congratulations to Raina, Ann and Stephen. All participants, including the audience are thanked for their contributions. Thank you also to this year's enthusiastic judges: Prof. Phillip Kuchel (University of Sydney), Dr Bridget Mabbutt (Macquarie) and Dr Phillip Robinson (CMRI).

### 06.11.01 Seminar by Geoff Wyatt from Wyatt Technologies (USA) [top]

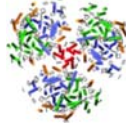
Geoff Wyatt, the president of Wyatt Technologies gave a seminar entitled Absolute Biomolecular Characterization (or Determining the solution properties of biopolymers without column calibration or reference standards) in the Biochemistry Department at the University of Sydney on Tuesday 6 November. This seminar dealt with the use of multi-angle laser light scattering in determining the solution properties of biopolymers (proteins, DNA and saccharides, to name just a few) without the need for column calibration or reference standards. One very nice aspect of the instrument is its ability to be hooked up as a detector on an ordinary HPLC or FPLC, thereby allowing molecular weight determination straight off a gel filtration run, for example. Geoff showed that this is a very powerful experimental technique that may be of interest to a wide range of researchers. Afternoon tea was sponsored by **Shimadzu**, the Australian distributor of **Wyatt instruments**.

**08.10.01 Post-ComBio2001 meeting [top]**

The Post-ComBio2001 Half Day meeting, sponsored by **Beckman Coulter**, was held on October 8th in the department of Biochemistry at the University of Sydney. Three international speakers dropped by on their way home from presenting at COMBIO and four others provided a more local flavour. We were treated to a range of excellent talks on different topics. The full line up was:

<b>Wilfred van Gunsteren</b> ETH, Zurich		Computer simulation of biological systems <a href="#">[www]</a>
<b>Bridget Mabbutt</b> Macquarie University		Proteins of New Colours: Fishing in the Mobile Gene Pool <a href="#">[www]</a>
<b>Richard Christopherson</b> University of Sydney		Protein microarrays in leukemia diagnosis <a href="#">[www]</a>
<b>Mark Wilson</b> University of Wollongong		Clusterin: a novel extracellular chaperone <a href="#">[www]</a>
<b>Alan Berry</b> Leeds University		Protein engineering of aldolases <a href="#">[www]</a>
<b>Paul Curmi</b> University of NSW		Twist & Shear: asymmetries in beta-sheets & beta-ribbons <a href="#">[www]</a>
<b>Sheena Radford</b> Leeds University		Protein folding and disease <a href="#">[www]</a>

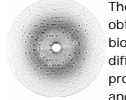
Thanks to our additional trade supporters: Agilent Technologies, Amersham Pharmacia Biotech, Biorad, HD Scientific, Millipore Australia and Progen Industries

**July 2001 Lemberg Lecture by Prof. Petra Fromme [top]**

The Lemberg Lecture of 2001 of the Australian Academy of Science, entitled "From sunlight to electron transfer: Structure and function of Photosystem I and II", was given by Professor Petra Fromme. The Sydney Protein Group was pleased to be able to assist. It was a wonderful lecture on the refined crystal structures of both photosystem I and photosystem II, her laboratory having published these in the last 12 months, the most recent being Photosystem I giving atomic detail at 2.5 Å resolution (Jordan et al, *Nature* on June 21). Her talk started with a picture of the green planet from space and then proceeded toward the molecular detail of the primary events of photosynthesis. She described structures jam-packed with cofactors. Photosystem I has 12 protein subunits and 127 cofactors comprising 96 chlorophylls, 2 phylloquinones, 3 Fe4S4 clusters, 22 carotenoids, 4 lipids, a putative Ca<sup>2+</sup> ion and 201 water molecules. The vast majority of the chlorophylls act as antenna to harvest solar energy and then electrons are passed along a chain of co-factors. Professor Fromme described the structure with amazing intimate understanding: the work itself the culmination of more than 10 years of achievement- and in fact a description of a structure of approximately 1 million molecular weight!!! She did very well to pack the seminar into its time slot. Professor Fromme is now undertaking a move from the Free University of Berlin to Arizona State University, Tempe.

**02.07.01 Seminar by Dr Jill Trehwella [top]**

Dr Jill Trehwella, the Director of the Biosciences Division at Los Alamos National Laboratories, gave an SPG-sponsored seminar in the Department of Biochemistry at the University of Sydney on July 2, 2001. Her talk was entitled "Unlocking the Secrets of signal transduction using information from hybrid experimental data". In this talk Jill introduced us to neutron diffraction and the way in which it can be used, in combination with other experimental techniques, to develop high-resolution models of protein complexes. These models, often developed from incomplete data or scarce data, can then be tested with further experiments. As examples of her approach, Jill described her work on two systems, the troponin C/troponin I complex (the molecular switch from skeletal muscle), and the interaction of the regulatory and catalytic subunits of the cAMP-dependent protein kinase. Visit Jill's [WWW](#)site.

**09.05.01 Seminar by Keith Moffat [top]**

The SPG co-sponsored a special seminar by Professor Keith Moffat, the Australian Academy of Science's 2001 Selby Fellow, on Wednesday, 9 May 2001, in the Common Room of the Biochemistry Department at the University of Sydney. Professor Moffat, who obtained his first degree in physics at the University of Edinburgh and his doctorate in protein crystallography at the MRC Unit in Cambridge, is the Louis Block Professor of Biochemistry at the University of Chicago. He is also the Director of the BioCARS sector for biophysics research at the Advanced Photon Source at Argonne, Illinois, and was until recently the Director of the entire Consortium for Advanced Radiation Sources at the Advanced Photon Source. Professor Moffat has been one of the pioneers of time-resolved diffraction measurements on macromolecular crystals. Using intense synchrotron X-ray beams, he has been able to generate the diffraction patterns of protein crystals sufficiently fast to determine the structures of short-lived intermediates in some biochemical processes. The climax of his seminar on "Ultra-Fast Time-Resolved Macromolecular Crystallography" was a movie-like sequence of the structures formed during a photolytic dissociation of the myoglobin-CO complex. The seminar was followed by a lively discussion, and (later) by a well-cushioned Lebanese dinner in King Street.

**13.02.01 Seminar by Prof. Ulrich Hartl [top]**

On Thursday 13 February 2001, Professor Ulrich Hartl, from the Max Planck Institute for Biochemistry at Matinsried, gave a special seminar in the Department of Biochemistry (University of Sydney). Prof. Hartl is a leading authority on molecular chaperone action and protein folding in the cell, and has published 60 articles in this area over the last 11 years, including 11 in *Nature* and 5 in *Science*. The seminar room was filled to capacity, and Professor Hartl gave the hottest talk in his career. He may have been referring to the temperature (which was in the high 30's), but he gave us a fabulous presentation. This included a comprehensive explanation of chaperone action and protein folding in the cell (many aspects of which have been elucidated in his laboratory), as well as the structure and mechanism of prefoldin, a eukaryotic and archaeal Hsp70-like chaperone that has a novel "jellyfish" fold.

**01.02.01 Pre-Lorne One-Day Meeting 2001 [top]**

The pre-Lorne meeting was held immediately following the AGM on the afternoon of Thursday 1st February, 2001 in the Athol Lykke Lecture Theatre at the University of NSW. The 60 or so attendees were treated to a variety of fascinating talks from the four international speakers. **Chris Dobson**, from the University of Oxford (but about to move to the University of Cambridge) told us about the links between protein misfolding and disease, including the tendency of many proteins to form amyloid fibrils. **Dario Alessi**, from the University of Dundee unraveled some of the signalling pathways that are regulated by insulin and might form good targets for anti-diabetic therapies. **Jim Stull**, from the University of Texas revealed the mechanisms by which different cell types regulate myosin phosphorylation and activation. Lastly, **Thomas Sollner** from the Sloane-Kettering Institute, showed us how V- and T-SNAREs form highly specific SNARE complexes in order to control different intracellular membrane fusion events. The meeting was followed by drinks, then dinner at a local Coogee restaurant. We would like to thank Alltech and Proteome Systems for their generous sponsorship of this meeting.

**Alltech**  
distributors of Vydac and Hamilton

**proteome systems**  
imaging proteomics technology

**Feb. 2000 Summer one-day meeting 2000 [top]**

For this year's summer meeting of the SPG, three international speakers on route to the annual ComBio conference in Wellington joined together with interstate and local speakers for a general one-day series of seminars. The meeting was held in the picturesque Old Quadrangle at the University of Sydney and was jointly hosted with the Sydney Transcription Group (STG) for the first (but hopefully not the last) time. The varied talks were excellent, and the meeting was followed by drinks then dinner at a local restaurant. The full list of speakers was:

- **Dr David Gell** (Sydney Uni/Cambridge) Mechanisms of DNA repair
- **Dr Doug Hilton** (WEHI) Switching cytokine signal transduction off
- **Dr Laura Issa** (CMRI) The MustR1 transcription factor
- **Dr Harry Klee** (Uni. of Florida) Hormone regulation in plants
- **Dr Sudha Rao** (ANU) Cytokine gene regulation
- **Dr Graham Robertson** (Westmead) Inducible gene expression of P450 in transgenic mice livers



Lorne, the site of the annual Lorne Conference on Protein Structure and Function

- **Prof. Robert Schmidt** (UCSD) Molecular control of plant development
- **Dr Duncan Sparrow** (Victor Chang Institute/) Gene expression in the heart
- **Prof. Reed Wickner** (NIH) Prions in yeast

Congratulations also go to the winners of the SPG's [Lorne Travelling Fellowships](#):

**Greg Raiston Travelling Fellowship: Janet Deane (University of Sydney)**  
**BioRad Lorne Travelling Fellowship: Ian Duggin (University of Sydney)**  
**Proteome Systems Lorne Travelling Fellowship: Adam Bryomora (CMRI)**

### 23.08.00Thompson Prize Evening 2000 [\[top\]](#)

The Sydney Protein Group's Thompson Prize Night is held each year to provide an opportunity for some of our more outstanding young researchers to present their work. A Prize of \$500 is awarded for the best presentation. This year the event took place on the evening of Wednesday, 23rd August at the Garvan Institute of Medical Research. The presenters and topics were as follows:

**Adam Bryomora**, Children's Medical Research Institute and University of Sydney  
 Function and regulation of the small GTPase Ra1A in neuronal cells

**David Elliott**, Victor Chang Cardiac Research Institute

A tyrosine rich motif is essential for the activity of the Nkx2-5 C-terminal transactivation domain

**Sacha Jensen**, University of Sydney

MAGP-1 binds to an internal region of tropoelastin and to the N-terminus of fibrillin-1

**José Perdomo**, University of Sydney

Eos and Pegasus: two members of the Ikaros family of proteins with distinct DNA-binding activities

**Laura Daqiq**, CSIRO Plant Industry, Quality Wheat CRC and University of Sydney

Extractability and size distribution studies on wheat protein using Flow-Field Flow Fractionation

**Janelle Barry**, Garvan Institute of Medical Research



John Shine    Rob Baxter  
 Adam Bryomora    Mitchell Guss

An AF-2-independent Skip interaction interface on helix 11 of the Vitamin D receptor

The standard of presentation was excellent and after careful consideration the award was presented to **Adam Bryomora**, with special mentions to Jose Perdomo and Janelle Barry. The Sydney Protein Group thanks the three judges, Prof. Rob Baxter, Dr Mitchell Guss and Prof. John Shine, for performing this difficult but important task, and thanks Brett Church, Siiri Iismaa and Kieran Scott of the Garvan Institute for all their work co-ordinating and hosting the event. We look forward to another enjoyable Thompson Prize Night next year.

### 08.08.00 Seminar by Prof. Murray Stewart [\[top\]](#)

**Location:** Tea Room, 4th Floor, Department of Biochemistry, University of Sydney

**Title:** Interactions between nucleoporins and transport factors in nuclear protein import

**Background:** Murray is a world-renowned X-ray crystallographer with an interest in the mechanism(s) underlying nuclear transport. His laboratory have determined a number of structures of proteins that assist in controlling this process. See [here](#) for an overview of Murray Stewart's work in this area.

**Summary:** Murray gave a typically enthusiastic and invigorating lecture, in which he outlined the problem that having a nuclear membrane poses for a eukaryotic organism and then proceeded to explain some of the mechanisms that have been uncovered for controlling nuclear transport as a result of work carried out both in his and in other laboratories around the world. The lecture was attended by around 50 people and there was substantial interest generated in the topic, judging from the question time and discussions afterwards. Many thanks to Murray for accepting our invitation to speak.

### 20.06.00Seminar by Mr Juhani Soini [\[top\]](#)

**Location:** Level 4 Tearoom, Dept of Biochemistry, University of Sydney

**Title:** Two-photon fluorescence excitation in bioaffinity assays

**Abstract:** [View PDF file](#)

**Summary:** This was an excellent presentation that was well-attended (around 40 people), perhaps due to the afternoon tea provided beforehand! Juhani gave an extremely clear introduction to the phenomenon of two-photon fluorescence, and highlighted the power of the device developed by his group at the University of Turku. This shoebox-sized machine will be able to carry out ELISA-type assays *in situ* without the need for any washing procedures, and with the potential to detect multiple analytes at the same time. It is hoped that the reductions in complexity and expense will enable immunoassays to ultimately become a routine diagnostic tool.

### 03.02.00One-day Pre-Lorne Meeting [\[top\]](#)

A one day meeting was held prior to the Lorne Protein Conference on 3 February, 2000. This meeting was held at the Garvan Institute for Medical Research, and was attended by around 70 people. Lunch, morning and afternoon teas were held on the premises and a most enjoyable day was had by all. Dinner was held afterwards in a local Italian restaurant. See [here](#) for some photos. Six international speakers who were in Australia to present their work at the Lorne Protein Conference generously agreed to stop off in Sydney and give presentations, and the programme was completed by Trevor Biden from the Garvan Institute. The full list of speakers was:

**David Kitson**, MSI, UK

Automated model building and functional annotation of the genome

**Arthur Lesk**, Cambridge, UK

Conformational changes in serpins Coffee

**Jane Clarke**, Cambridge, UK

Folding studies of Ig-like beta-sandwich proteins using denaturants and atomic force microscopy

**Bryan Sutton**, Yale, USA

SNAREs and Triggers: the X-ray crystal structure of several key proteins involved in neurosecretion and exocytosis

**Trevor Biden**, Garvan Institute

The role of protein kinases in regulation of insulin secretion

**Helmut Meyer**, Ruhr, Germany

Identification of proteins from 2D-PAGE using MALDI-MS and MALDI-PSD

**Valerie Daggett**, Seattle, USA

Towards characterisation of unfolding/folding events at atomic resolution



Adam Bryomora    Jose Perdomo    Sacha Jensen    David Elliott  
 Laura Daqiq    Janelle Barry

