AsCA 2018 / CRYSTAL 32 SPEAKER TIMETABLE:

SUNDAY DECEMBER 2:

08:00 – 09:00  Registration

08:30 – 09:00  Morning Tea – WORKSHOP ATTENDEES ONLY (Foyer 260-071)

09:00 – 12:00  Workshops – morning session:

<table>
<thead>
<tr>
<th>Room 040B</th>
<th>Room 040C</th>
<th>Case Room 3 055</th>
<th>Case Room 2 057</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCP4/AutoRickshaw workshop</td>
<td>Lipidic cubic phase workshop</td>
<td>CCDC/OLEX2 workshop</td>
<td>SBGrid workshop</td>
</tr>
</tbody>
</table>

12:00 – 12:30  Lunch - WORKSHOP ATTENDEES ONLY (Foyer 260-071)

12:30 – 3:00  Workshops – afternoon session:

<table>
<thead>
<tr>
<th>Room 040B</th>
<th>Room 040C</th>
<th>Case Room 3 055</th>
<th>Case Room 2 057</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCP4/AutoRickshaw workshop</td>
<td>Lipidic cubic phase workshop</td>
<td>CCDC/OLEX2 workshop</td>
<td>Diffraction and spectroscopic methods at XFEL and synchrotron sources - workshop</td>
</tr>
</tbody>
</table>

2:00 – 3:00  Registration

3:00 – 3:30  Opening Ceremony  Lecture Theatre 098

3:30 – 5:15  General interest symposium:  Lecture Theatre 098

(Chair: Kurt Krause)

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:30 – 4:00</td>
<td>Anders Liljas</td>
<td>History of the crystallography as viewed through the lens of the Nobel Prize</td>
</tr>
<tr>
<td>4:00 – 4:20</td>
<td>Marc Storms</td>
<td>The role of Cryo-electron microscopy in structural biology after the “resolution revolution”</td>
</tr>
<tr>
<td>4:20 – 4:40</td>
<td>Piotr Sliz</td>
<td>X-ray Crystallography to Cryo-Electron Microscopy: Computing Infrastructure</td>
</tr>
<tr>
<td>4:40 – 5:10</td>
<td>George Phillips</td>
<td>The Future of Crystallography – or Not</td>
</tr>
</tbody>
</table>

5:15 – 6:00  Keynote 1:  Lecture Theatre 098

CRISPR-Cas Mediated Cleavage of Invading Nucleic Acids  (Chair: MiHwa Lee)

5:15 – 6:00  Keynote 2:  Fisher & Paykel Appliances Auditorium

Toward dimensional crossover on conductive coordination networks  (Chair: Masaki Kawano)

6:00 – 7:00  Plenary 1:  Fisher & Paykel Appliances Auditorium

Bacterial Protein Export Machines  (Chair: Jenny Martin)
7:00 – 8:30  Opening Night Mixer and Poster Session 1 (Foyer 260-101 & F&PAA Lobby)
## MONDAY DECEMBER 3:

### 08:00 – 09:00
Registration

### 08:45 – 10:45
**MS#1: Membrane proteins:**
(Chairs: Ruby Law, Satoshi Murakami)

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.45</td>
<td>Megan Maher</td>
<td>Structural snapshots of manganese uptake in <em>Streptococcus pneumoniae</em></td>
</tr>
<tr>
<td>9.10</td>
<td>Kazuhiro Abe</td>
<td>Crystal structures of the gastric proton pump</td>
</tr>
<tr>
<td>9.35</td>
<td>Alisa Glukhova</td>
<td>Snapshots of GPCR-G protein complexes</td>
</tr>
<tr>
<td>10.00</td>
<td>Michael Parker</td>
<td>Structure-based drug discovery in Alzheimer’s disease</td>
</tr>
<tr>
<td>10.15</td>
<td>Jason Busby</td>
<td>Chaperone-like encapsulation of insecticidal toxins</td>
</tr>
<tr>
<td>10.30</td>
<td>Karen Steffi Cheung Tung Shing</td>
<td>An insight in the assembly mechanism of the beta common cytokine receptors</td>
</tr>
</tbody>
</table>

### 08:45 – 10:45
**MS#2: Crystal engineering:**
(Chair: Stuart Batten)

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.45</td>
<td>Edward Tiekink</td>
<td>The energies of non-standard intermolecular interactions are competitive with conventional hydrogen bonding</td>
</tr>
<tr>
<td>9.10</td>
<td>Hoi-Ri Moon</td>
<td>Exploration of Structural Transformations and Catalytic Selectivity in Tailored Flexible Metal-Organic Frameworks</td>
</tr>
<tr>
<td>9.35</td>
<td>Hidehiro Uekusa</td>
<td>Crystal Engineering of scented inclusion crystal and its sustained-release property</td>
</tr>
<tr>
<td>9.55</td>
<td>Joanna Stevens</td>
<td>Understanding polymorphism using hydrogen bond propensities</td>
</tr>
<tr>
<td>10.15</td>
<td>Ali Chahine</td>
<td>Selective carbon dioxide capture through adopting the backbone embedded amines into porous coordination polymers, ’the third approach’</td>
</tr>
</tbody>
</table>

### 08:45 – 10:45
**MS#3: Novel synchrotron and neutron applications:**
(Chairs: Vanessa Peterson, Rachel Williamson)

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>8.45</td>
<td>Helen Brand</td>
<td>Shining a light on Martian processes using in situ neutron and synchrotron techniques</td>
</tr>
<tr>
<td>9.10</td>
<td>David Keen</td>
<td>Refining local structural disorder using combined synchrotron X-ray and spallation neutron total scattering/pair distribution functions</td>
</tr>
<tr>
<td>9.35</td>
<td>Dohyun Moon</td>
<td>Introduction of 2D-Supramolecular Crystallography Beamline (BL2D-SMC) at Pohang Light Source II in Korea</td>
</tr>
<tr>
<td>10.00</td>
<td>Connie Darmanin</td>
<td>XRD data from small aggregating crystals: Trials and tribulations</td>
</tr>
<tr>
<td>10.15</td>
<td>Shinji Kihara</td>
<td>Nanoplastics – protein interaction: A scattering study of the transition from soft to hard corona</td>
</tr>
</tbody>
</table>

### 10:45 – 11:15
Morning Tea (Foyer 260-071 & Foyer 260-088)

### 11:15 – 1:15
**MS#4. Applications of cryo-EM to structural biology:**
(Chair: Miheea Bostina)

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>11.15</td>
<td>Michael Landsberg</td>
<td>Cryo-EM structures of the pore-forming ABC toxin from Yersinia entomophaga provide insights into the dynamic structural rearrangement associated with membrane recognition</td>
</tr>
<tr>
<td>11.35</td>
<td>K R Vinothkumar</td>
<td>A novel metal-bound active site in a hydrolytic enzyme</td>
</tr>
<tr>
<td>Time</td>
<td>Speaker</td>
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<tr>
<td>11.55 – 12.15</td>
<td>Alok Mitra</td>
<td>A nanoscale injection mechanism: imaging the shear contraction of the antifeeding prophage of <em>S. entomophila</em></td>
</tr>
<tr>
<td>12.15 – 12.35</td>
<td>Atsushi Nakagawa</td>
<td>Hierarchical structure assembly mechanism of <em>Rice dwarf virus</em></td>
</tr>
<tr>
<td>12.35 – 12.55</td>
<td>Cong Liu</td>
<td>The structural basis of reversible fibril involved in phase separation and neurodegenerative diseases</td>
</tr>
<tr>
<td>12.55 – 1.15</td>
<td>Chris Hill</td>
<td>Structural Basis for Substrate Translocation by the AAA ATPase Vps4</td>
</tr>
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</table>

**11:15 – 1:15**

**MS#5. Solid state reactions and dynamics:**

(Chairs: Chris Ling, Jun Harada)

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
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</tr>
</thead>
<tbody>
<tr>
<td>11.15 – 11.40</td>
<td>Tomohiro Seki</td>
<td>Reversible phase transition between single crystals of luminescent gold complex</td>
</tr>
<tr>
<td>11.40 – 12.05</td>
<td>Matthew Rowles</td>
<td><em>In situ</em> diffraction characterisation of hydrogen storage materials</td>
</tr>
<tr>
<td>12.05 – 12.30</td>
<td>Arnaud Grosjean</td>
<td>Elastic, plastic and creep deformation in one single crystal: structural investigations by micro focused X-ray diffraction</td>
</tr>
<tr>
<td>12.30 – 12.50</td>
<td>Takashi Ohhara</td>
<td>Temperature-induced intramolecular proton transfer in a novel polymorph of 2-(2’-hydroxyphenyl)benzimidazole crystal</td>
</tr>
<tr>
<td>12.50 – 1.10</td>
<td>Yumi Yakiyama</td>
<td>Structures and Properties of Porous Molecular Crystals Composed of Unique H-shape Molecules</td>
</tr>
</tbody>
</table>

**11:15 – 1:15**

**MS#6. Recent developments in crystal Growth:**

(Chairs: Janet Newman, Barnali Chaudhuri)

<table>
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<tr>
<th>Time</th>
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<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.15 – 11.40</td>
<td>Melissa Call</td>
<td>Analysing transmembrane helix interactions using lipid cubic phase crystallisation</td>
</tr>
<tr>
<td>11.40 – 12.05</td>
<td>Fasseli Coulibaly</td>
<td>Millennials microcrystals: wouldn’t it be easier to stay home?</td>
</tr>
<tr>
<td>12.05 – 12.30</td>
<td>Robert Thorne</td>
<td>Solvent Behavior, Ice Formation, and Nanoconfinement in Protein Crystals: Implications for Cryo- and Variable-Temperature Crystallography</td>
</tr>
<tr>
<td>12.30 – 12.50</td>
<td>Rebecca Eno</td>
<td>Using mutants designed to alter crystal packing to determine mode of action of inhibitors for multiple herbicide resistance in weeds</td>
</tr>
<tr>
<td>12.50 – 1.10</td>
<td>Monika Budayova-Spano</td>
<td>Membrane-assisted protein crystallization</td>
</tr>
</tbody>
</table>

**1:15 – 2:30**

LUNCH (Foyer 260-071 & Foyer 260-088) and Bruker Lunchtime workshop (Case Room 3 055)

**2:30 – 4:30**

**MS#7. Hybrid methods in structural Biology:**

(Chairs: Grant Pearce, Sangho Lee)

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.30 – 2.55</td>
<td>Jose Rodriguez</td>
<td>Lattice nano-ripples revealed in peptide microcrystals by scanning electron nanodiffraction</td>
</tr>
<tr>
<td>2.55 – 3.20</td>
<td>Ji-Joon Song</td>
<td>Integrative Structural Investigation on Macromolecular Protein Complexes</td>
</tr>
<tr>
<td>3.20 – 3.45</td>
<td>Ruby Law</td>
<td>Structural Function Studies of Complement Component-9</td>
</tr>
<tr>
<td>3.45 – 4.00</td>
<td>Innokentijs Josts</td>
<td>Investigation of an ABC transporter MsbA in stealth carrier nanodiscs using small angle scattering techniques</td>
</tr>
<tr>
<td>4.00 – 4.15</td>
<td>Rhys Grinter</td>
<td>A tale of two proteases: Using X-rays to dissect the function of novel bacterial ferroprotein degradases</td>
</tr>
<tr>
<td>4.15 – 4.30</td>
<td>Stephanie Dawes</td>
<td>Molecular dynamics gives insights into TetR transcriptional regulator</td>
</tr>
</tbody>
</table>
**MS#8. Structure and properties of functional materials:**
(Chair: Hoi-Ri Moon)

<table>
<thead>
<tr>
<th>Time</th>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.30 – 2.55</td>
<td>Joanne Etheridge</td>
<td>Finding the atoms that matter in functional materials</td>
</tr>
<tr>
<td>2.55 – 3.20</td>
<td>Wonyoung Choe</td>
<td>Evolution of Form in Metal-Organic Frameworks</td>
</tr>
<tr>
<td>3.20 – 3.45</td>
<td>Dae-Woo Lim</td>
<td>Crystallographic understanding of proton conducting pathway with conducting medium confined in metal-organic frameworks</td>
</tr>
<tr>
<td>3.45 – 4.05</td>
<td>Pramod Halappa</td>
<td>Effect of local structure variation on Photo-catalytic Organic Transformation activity of Iso-structural PbW1-xMoxO4 Nano-solid Solutions</td>
</tr>
<tr>
<td>4.05 – 4.25</td>
<td>Pierre Naeyaert</td>
<td>The Effect of K-doping on the Performance of P2-type Na-ion BatteryCathodeMaterials</td>
</tr>
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**MS#9. XFELs and serial crystallography:**
(Chairs: Connie Darmanin, Hiroshi Sugimoto)

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>2.30 – 2.55</td>
<td>Minoru Kubo</td>
<td>Time-Resolved XFEL Crystallography for Capturing Reaction Intermediates of Respiratory Metalloenzymes</td>
</tr>
<tr>
<td>2.55 – 3.20</td>
<td>Richard Bean</td>
<td>SPB/SFX: First Experimental Results and Future Developments</td>
</tr>
<tr>
<td>3.20 – 3.45</td>
<td>Clyde Smith</td>
<td>New opportunities for structural biology research at LCLS and SSRL</td>
</tr>
<tr>
<td>3.45 – 4.00</td>
<td>Takashi Kumasaka</td>
<td>Development of fixed-target serial crystallography at room temperature in SPring-8</td>
</tr>
<tr>
<td>4.00 – 4.15</td>
<td>Andrew Martin</td>
<td>Fluctuation x-ray scattering: measuring the statistics of local 3D structure of amorphous materials, liquids and nanocrystals</td>
</tr>
<tr>
<td>4.15 – 4.30</td>
<td>Susannah Holmes</td>
<td>The effect of consecutive X-ray pulses on a single crystal at the European XFEL</td>
</tr>
</tbody>
</table>

**4:30 – 5:00**
Afternoon Tea (Foyer 260-071 & Foyer 260-088)

**5:00 – 6:00**
**Plenary 2:**
Cameron Kepert
Fisher & Paykel Appliances Auditorium
Adventures in Diffraction: Probing Dynamic Processes within Molecular Framework Materials
(Chair: Shane Telfer)

**6:00 – 7:45**
**Networking Mixer and Poster Session 2 (Foyer 260-101 & F&PAA Lobby)**
Sponsored by School of Biomedical Sciences, University of Otago
TUESDAY DECEMBER 4:

08:00 – 09:00  Registration

8:45 – 9:30  **SCANZ Mathieson Lecture:**  Lecture Theatre 098
Suzanne Neville
Molecular Switching Framework Materials
(Chair: Chris Sumby)

9:30 – 10:15  **Keynote 3:**  Lecture Theatre OGGB3
Richard Neutze
Time-resolved diffraction experiments at X-ray free electron lasers
reveal ultrafast structural changes in photosynthesis
(Chair: Richard Kingston)

**Keynote 4:**  Deanna D’Alesandro  Lecture Theatre OGGB4
Harnessing Electroactivity in Coordination Frameworks
(Chair: Edward Tiekink)

10:15 – 10:45  Morning Tea (Foyer 260-071 & Foyer 260-088)

10:45 – 12:45  **MS#10. Disease-related proteins:**  Lecture Theatre OGGB3
(Chairs: Bostjan Kobe, Hanna Yuan)

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<thead>
<tr>
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<tbody>
<tr>
<td>10.45 – 11.10</td>
<td>Emily Parker</td>
<td>Twisting tales and pKa pathways in key biosynthetic enzymes</td>
</tr>
<tr>
<td>11.10 – 11.35</td>
<td>Yonggui Gao</td>
<td>Antibacterial drug resistance through ribosome protection ATP-binding cassette protein</td>
</tr>
<tr>
<td>11.35 – 11.50</td>
<td>Ruchi Anand</td>
<td>Using Structural Biology as a tool to Decipher Origins of Antibiotic Resistance</td>
</tr>
<tr>
<td>11.50 – 12.05</td>
<td>J Sivaraman</td>
<td>Structural basis for the function of ScpC, a virulence protease from <em>Streptococcus pyogenes</em></td>
</tr>
<tr>
<td>12.05 – 12.20</td>
<td>Luke Guddat</td>
<td>Targeting branched chain amino acid biosynthesis for herbicides and antifungals</td>
</tr>
<tr>
<td>12.20 – 12.45</td>
<td>Nei-Li Chan</td>
<td>Structural Insights into the Gating of DNA Passage by the Topoisomerase II DNA-Gate</td>
</tr>
</tbody>
</table>

10:45 – 12:45  **MS#11. MOFs and hybrid materials:**  Lecture Theatre OGGB5
(Chairs: Lauren Macreadie, J J Vittal)

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<thead>
<tr>
<th>Time</th>
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<th>Title</th>
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<tbody>
<tr>
<td>10.45 – 11.10</td>
<td>Shane Telfer</td>
<td>Pore Programming in Multicomponent Metal-Organic Frameworks</td>
</tr>
<tr>
<td>11.10 – 11.35</td>
<td>Shiho Sairenji</td>
<td>Determination of the Absolute Configuration of Compounds Bearing Chiral Quaternary Carbon Centers Using the Crystalline Sponge Method</td>
</tr>
<tr>
<td>11.35 – 12.00</td>
<td>Shim Sung Lee</td>
<td>Pillar[S]arene as a new member in MOFs and hybrid materials</td>
</tr>
<tr>
<td>12.00 – 12.15</td>
<td>Stuart Batten</td>
<td>Alkylamine Coordination Polymers for CO₂ Capture</td>
</tr>
<tr>
<td>12.15 – 12.30</td>
<td>Wei-Yin Sun</td>
<td>Metal-organic frameworks with chelating multiamine ligands: synthesis and properties</td>
</tr>
<tr>
<td>12.30 – 12.45</td>
<td>Winnie Cao</td>
<td>Crystal engineering of chiral coordination polymers with amino acid derived ligands</td>
</tr>
</tbody>
</table>

10:45 – 12:45  **MS#12. Advanced methods in crystallography**  Lecture Theatre OGGB4
**electron diffraction and cryo-EM:**  Lecture Theatre OGGB4
(Chair: Dominika Elmlund)

<table>
<thead>
<tr>
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<th>Title</th>
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</thead>
<tbody>
<tr>
<td>10.45 – 11.10</td>
<td>Hans Elmlund</td>
<td>Algorithms for real-time unsupervised cryo-EM structure determination</td>
</tr>
<tr>
<td>11.10 – 11.25</td>
<td>Wei Ding</td>
<td>IPCAS: A Pipeline from Phasing to Model Building and Refinement for X-ray Diffraction Data and Cryo-EM Density Map</td>
</tr>
<tr>
<td>11.25 – 11.40</td>
<td>Pavel Afonine</td>
<td>New Phenix tools for validation of cryo-EM maps and models</td>
</tr>
<tr>
<td>11.40 – 12.05</td>
<td>Yungwon Park</td>
<td>Multi-dimensional liquid phase TEM for studying colloidal nanoparticles</td>
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</table>
**Lecture Theatre OGGB3**

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<tr>
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<tbody>
<tr>
<td>12.05 – 12.20</td>
<td>Jianbo Wang</td>
<td>Atomistic and Real-time Structural Characterization in Metal Oxides</td>
</tr>
<tr>
<td>12.20 – 12.45</td>
<td>Tamir Gonen</td>
<td>MicroED: conception, practice and future opportunities</td>
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<tr>
<td>12.45 – 2:00</td>
<td>LUNCH (Foyer 260-071 &amp; Foyer 260-088)</td>
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<td></td>
<td>Thermo Fisher Scientific Lunchtime workshop (Case Room 3 055)</td>
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<tr>
<td>1:00 – 2:00</td>
<td>SCANZ Business Meeting (Case Room 2 057)</td>
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**2:00 – 4:00**

**MS#13. Hot structures-biology:**

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</thead>
<tbody>
<tr>
<td>2.00 – 2.25</td>
<td>Emily Furlong</td>
<td>Studies of the trimeric disulfide isomerase PmSscC and its redox partner PmSscBα</td>
</tr>
<tr>
<td>2.25 – 2.50</td>
<td>Kayarat Saikrishnan</td>
<td>Structure-based mechanism of nucleotide-dependent restriction endonuclease</td>
</tr>
<tr>
<td>2.50 – 3.15</td>
<td>Toshiharu Suzuki</td>
<td>Static and dynamic X-ray crystallographic analyses of reaction intermediate states of mammalian F1-ATPase to reveal the physical power generation mechanism</td>
</tr>
<tr>
<td>3.15 – 3.30</td>
<td>Gayathri Pananghat</td>
<td>Mechanism of allosteric activation of a prokaryotic small Ras-like GTPase by an asymmetric dimer interaction</td>
</tr>
<tr>
<td>3.30 – 3.45</td>
<td>Andrew McCarthy</td>
<td>Crystal structure of METTL16, an RNA m6A writer that is essential for mouse embryonic development</td>
</tr>
<tr>
<td>3.45 – 4.00</td>
<td>Bostjan Kobe</td>
<td>Structural basis of NAD+ cleavage activity by mammalian and plant TIR domains</td>
</tr>
</tbody>
</table>

**Lecture Theatre OGGB4**

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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<tbody>
<tr>
<td>2.00 – 2.15</td>
<td>James Hester</td>
<td>What is a dataset?</td>
</tr>
<tr>
<td>2.15 – 2.40</td>
<td>Janet Newman</td>
<td>Data for Crystallisation – Answers are in the distance</td>
</tr>
<tr>
<td>2.40 – 2.55</td>
<td>Matthew Lightfoot</td>
<td>The Cambridge Structural Database – Developments in deposition and access</td>
</tr>
<tr>
<td>2.55 – 3.20</td>
<td>Stephen Burley</td>
<td>Ligand Validation for the Protein Data Bank</td>
</tr>
<tr>
<td>3.20 – 3.35</td>
<td>Takeshi Kawabata</td>
<td>Databases and Web services from PDBj for Electron Microscopy</td>
</tr>
<tr>
<td>3.35 – 4.00</td>
<td>Brian McMahon</td>
<td>The element of trust: validating and valuing crystallographic data</td>
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<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>4:00 – 4:30</td>
<td>Afternoon Tea (Foyer 260-071 &amp; Foyer 260-088)</td>
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**Plenary 3 – PUBLIC LECTURE:**

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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<tbody>
<tr>
<td>4:30 – 5:30</td>
<td>David Eisenberg</td>
<td>Fisher &amp; Paykel Appliances</td>
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<td></td>
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<td>Auditorium</td>
</tr>
</tbody>
</table>
Amyloid Fibrils in Health and Disease
(Chair: Ted Baker)
Sponsored by School of Biological Sciences, University of Auckland

7:00 – 11:30  Rigaku Conference Dinner – Auckland War Memorial Museum
**WEDNESDAY DECEMBER 5:**

08:00 – 09:00  Registration

8:45 – 9:30  **Keynote 5:**  Catherine Day  
Lecture Theatre OGGB3  
Building chains: regulation of ubiquitin transfer by E3 ligases  
(Chair: Jodie Johnston)

**Keynote 6:**  Ayana Sato-Tomita  
Lecture Theatre OGGB4  
Capturing a protein reaction triggered by laser photolysis in crystals  
(Chair: Tom Caradoc-Davies)

9:30 – 10:15  **SCANZ Bragg Lecture:**  Mitchell Guss  
Lecture Theatre 098  
My life in crystallography  
(Chair: David Aragao)

10:15 – 10:45  Morning Tea (Foyer 260-071 & Foyer 260-088)

10:45 – 12:45  **MS#16. Macromolecular complexes & assemblies:**  
Lecture Theatre OGGB3  
(Chairs: David Goldstone, Xiao-Dong Su)

<table>
<thead>
<tr>
<th>10.45 – 11.10</th>
<th>Zihe Rao</th>
<th>Structures of the Herpes simplex virus type 2 B-capsid and C-capsid with capsid-vertex-specific component</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.10 – 11.35</td>
<td>Satoshi Murakami</td>
<td>Structure and function of tripartite drug efflux transporters in Gram-negative bacteria</td>
</tr>
<tr>
<td>11.35 – 12.00</td>
<td>Ruiming Xu</td>
<td></td>
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<tr>
<td>12.00 – 12.15</td>
<td>Peter Mace</td>
<td>A bidentate Polycomb Repressive-Deubiquitinase complex is required for efficient activity on nucleosomes</td>
</tr>
<tr>
<td>12.15 – 12.30</td>
<td>Miroslaw Cygler</td>
<td>Structure and Dynamics of the Core Fe/S Cluster Assembly Complex</td>
</tr>
<tr>
<td>12.30 – 12.45</td>
<td>Gabrielle Watson</td>
<td>Structural basis of CD96 immune receptor recognition of nectin-like protein-5 (CD155)</td>
</tr>
</tbody>
</table>

10:45 – 12:45  **MS#17. Hot structures – chemistry:**  
Lecture Theatre OGGB5  
(Chairs: Chien Ing (Ally) Yeo, Geoff Jameson)

<table>
<thead>
<tr>
<th>10.45 – 11.10</th>
<th>Jagadese Vittal</th>
<th>Engineering of Photoreactivie and Photosalient Crystals</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.10 – 11.35</td>
<td>Masaki Kawano</td>
<td>Kinetic Assembly of Porous Coordination Networks</td>
</tr>
<tr>
<td>11.35 – 12.00</td>
<td>Elodie Rousset</td>
<td>Structure determination of twinned and poorly diffracting crystals suffering radiation damage using the MX beamlines at the Australian Synchrotron</td>
</tr>
<tr>
<td>12.00 – 12.15</td>
<td>Lauren Macreadie</td>
<td>Mixed-metal MOFs comprised of phenanthroline ligands with carboxylate functionalities</td>
</tr>
<tr>
<td>12.15 – 12.30</td>
<td>Tan Yee Seng</td>
<td>Crystal transformation and meta-stable forms of a tetramorphic one-dimensional coordination polymer of cadmium dithiophosphate with a bipyridine linker</td>
</tr>
<tr>
<td>12.30 – 12.45</td>
<td>Alison Edwards</td>
<td>On model phasing for Thorium (and other heavy element) clusters – getting the hydrides right</td>
</tr>
</tbody>
</table>

10:45 – 12:45  **MS#18. Novel applications of Crystallography:**  
Lecture Theatre OGGB4  
(Chairs: Helen Maynard-Casely, Huijeong Hwang).
<table>
<thead>
<tr>
<th>Time</th>
<th>Name</th>
<th>Title</th>
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<tbody>
<tr>
<td>10.45 – 11.05</td>
<td>Stephen Moggach</td>
<td>The effect of pressure, temperature and gas uptake within fullerenes stabilised phthalocyanine nanoporous molecular crystals</td>
</tr>
<tr>
<td>11.05 – 11.25</td>
<td>Tomoki Fujita</td>
<td>Solvothermal reactor for in-situ synchrotron radiation powder diffraction at SPring-8 BL02B2 for quantitative design for nanoparticle</td>
</tr>
<tr>
<td>11.25 – 11.45</td>
<td>Takeshi Matsukawa</td>
<td>Investigation of crystal structure of reduced ceria under hydrogen by powder neutron diffraction</td>
</tr>
<tr>
<td>11.45 – 12.05</td>
<td>Huijeong Hwang</td>
<td>Dynamic compression at Pohang X-ray Free Electron Laser Facility (PAL-XFEL)</td>
</tr>
<tr>
<td>12.05 – 12.25</td>
<td>Van Tri Nguyen</td>
<td>Quantum Dynamics of the [2Fe-2S] Composite 54.7°-Helix Nanostructure of Vegetable Fibers</td>
</tr>
<tr>
<td>12.25 – 12.45</td>
<td>Liang Li</td>
<td>Hexamethylbenzene: Ant or Elephant? A 3D Bendable Crystal with Giant Power Output Capability</td>
</tr>
</tbody>
</table>

12:45 – 2:00  LUNCH (Foyer 260-071 & Foyer 260-088)
1:00 – 2:00  AsCA Council Meeting (Case Room 3 055)

2:00 – 4:00  **Rising Star Symposium**
(Chairs: Alice Vrielyn, Pinak Chakrabati)

<table>
<thead>
<tr>
<th>Time</th>
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<tr>
<td>2:00 – 2:20</td>
<td>Sanchari Banerjee</td>
<td>Microcrystallography of heterogenous in vivo-grown protein crystals from the viviparous cockroach <em>Diploptera punctata</em></td>
</tr>
<tr>
<td>2:20 – 2:40</td>
<td>Yuka Deguchi</td>
<td>Charge density study of diamond at 800K using data correction for weak intensities</td>
</tr>
<tr>
<td>2:40 – 3:00</td>
<td>Matthias Fellner</td>
<td>Lactate racemization, a story of so much more than just a nickel</td>
</tr>
<tr>
<td>3:00 – 3:20</td>
<td>M. Mozzam Naseer</td>
<td>Noncovalent Carbon Bonding: Is it a σ-hole interaction of broad implications?</td>
</tr>
<tr>
<td>3:20 – 3:40</td>
<td>Kate Smith</td>
<td>Structural basis for importin alpha 3 specificity of W proteins in Hendra and Nipah viruses</td>
</tr>
<tr>
<td>3:40 – 4:00</td>
<td>Katrina Zenere</td>
<td>A Spin Crossover Framework That Does It All</td>
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</tbody>
</table>

4:00 – 4:30  Afternoon Tea (Foyer 260-071 & Foyer 260-088)

4:30 - 5:30  **Plenary 4 - SCANZ 1987 Lecture:**
Amy Rosenzweig
(Chair: Helen Maynard-Casely)

5:30 – 6:00  **Closing Ceremony**