

Microscopy New Zealand Conference 2024 - Full Schedule

Day 1: Monday 2nd December 2024

Time	Location	Workshops
10am - 12pm, 2 - 4pm	AgResearch Ahuwhenua room	Morning Sessions Image analysis: FIJI for Beginners. Sponsored by Plant & Food Research (includes lunch)
9am - 5pm	University of Canterbury, Engineering lecture theatre E5	Scanning Electron Microscopy: Master class theory and practice. Sponsored by AXT (includes lunch)
		Afternoon sessions
1pm - 3pm	Lincoln University Waimarie Whare Auaha meeting room	Fluorescence life-time imaging confocal microscopy (includes lunch)
		General
3pm	Lincoln University, Waimarie foyer	Setup trade displays (closes 5pm) Conference staff on hand and registration desk opens
7pm - 9pm	Lincoln University, Waimarie foyer	Welcome Reception

Day 2: Tuesday 3rd December 2024

Time	Location	
8:15am	Lincoln University Waimarie foyer	Registration desk opens
8:45am	Lincoln University Waimarie Inaka	Welcome with a Karakia (Dr. Duane Harland and Dr. Alice Eruera)
9am - 10:40am	Lincoln University Waimarie Inaka	Morning: Session 1
	9am - 10:00am	Morning: Session 1: Chemical imaging using infrared microscopy at the Australian Synchrotron (Dr. Pimm Vongsvivut): Sponsored by MNZ Inc.
	10:00am - 10:20am	Decoding hair fibre genesis: 3D mitotic cycle exploration through volume electron microscopy (Mr. Nickhil Jadav)
	10:20am - 10:40am	Accelerating cryoEM structure determination with SBGrid (Dr. Shaun Rawson)
10:40am - 11:00am	Lincoln University Waimarie foyer	Morning tea

NOTE: no food or drinks allowed in the Inaka lecture room

11:00am - 12:30pm Lincoln University Waimarie Inaka **Morning: Session 2**

11:00am - 11:50am Morning: Session 2: Researching human fertility, ethical and technical challenges (Dr. Karen Reader): Sponsored by Evident

11:50am - 12:10PM Wellington Bioimaging Group: enhancing regional imaging support and collaboration. (Dr. Alfonso Schmidt).

12:10PM - 12:30PM An investigation into the internal structure of sheep wool hair fibre (Ms. Georgia Rutter)

12:30pm - 1:30pm Lincoln University Waimarie foyer **Lunch**

NOTE: no food or drinks allowed in the Inaka lecture room

1:30pm -3pm Lincoln University Waimarie Inaka **Afternoon: Session 3**

1:30pm - 2:20pm Afternoon: Session 3: Peering inside pathogens; Using cryoEM to image features inside of viruses (Dr. Alice Eruera): Sponsored by JEOL

2:20pm - 2:40pm Microstructure decomposition of biological samples using propagation-based dark-field x-ray imaging. (Jeremy Stockdill)

2:40pm-3:00pm The long and winding road, story of Adelaide Microscopy at the University of Adelaide (Mr. Angus Netting)

3pm - 3:30pm Lincoln University Waimarie foyer **Afternoon tea**

NOTE: no food or drinks allowed in the Inaka lecture room

3:30pm - 5:00pm Lincoln University Waimarie Inaka **Afternoon: Session 4 - "Trade Secrets", sponsored by Microscopy New Zealand Inc.**

3:30pm - 3:45pm *Thermo Fisher Scientific*

3:45pm - 3:55pm *Evident*

3:55pm - 4:05pm *JEOL*

4:05pm - 4:15pm *AXT*

4:15pm - 4:25pm *Bio-Strategy*

4:45pm Lincoln University Waimarie Inaka Poster session, - 2 minute talks. then poster setup time.

6:00pm Lincoln University Waimarie foyer Trades and Vendor evening

Day 3: Wednesday 4th December 2024

9am - 10:40am	Lincoln University Waimarie Inaka	Morning: Session 5
	9am - 10:00am	Morning: Session 5: 50 years behind the microscope (Drs. Allan Mitchell and Ian Hallett): Sponsored by MNZ Inc.
	10:00am - 10:20am	Using SEM as a tool to understand the basis of insect communication with their surrounding world (Dr. Lee-Anne Manning)
	10:20am - 10:40am	A Tale of Two Tails: Unveiling the Architecture of Two Contractile Phage Tails (Dr. Mihnea Bostina)
10:40am - 11:00am	Lincoln University Waimarie foyer	Morning tea
		<i>NOTE: no food/drinks in the Inaka lecture room</i>
11:00am - 12:40pm	Lincoln University Waimarie Inaka	Morning: Session 6
	11:00am - 11:40am	X-ray photoelectron spectroscopy (XPS): from basic principles, to selected case studies and new capabilities at the University of Canterbury (Dr. Vladimir Golovko)
	11:40am - 12:00pm	Developing a deep learning tool for generalised volume electron microscopy samples segmentation. (Yuyao (Daniel) Huang)
	12:00pm - 12:20pm	mtDNA Release in MEFs: Investigating Mitochondrial Herniation with FIB Milling and Cryo-Electron Tomography (Dr. Sailakshmi Velamoor)
	12:20pm - 12:40pm	Large-scale TEM-MAPS: navigating the complex ultrastructure of biological systems (Dr. Marina Richena)
12:40pm - 2:30pm	Lincoln University Waimarie foyer	Lunch and poster session
		<i>NOTE: no food/drinks/in the Inaka lecture room</i>
2:30pm - 4:15pm	Lincoln University Waimarie Inaka	Afternoon: Session 7
	2:30pm - 3:20pm	Afternoon: Session 7: Keynote, imaging over biological scales using optical microscopy (Dr. Paul McMillan)
	3:20pm - 3:50pm	The Centre for Electron Microscopy and Materials Science (CEMMS), The University of Auckland. Review of NZ's latest SEM, FIB-SEM and Nanoindentation Instruments. (Dr. Steven Matthews)
	3:50pm - 4:10pm	Breaking the Shell: Genome Uncoating of Seneca Valley Virus (Ms. Rosheny Kumaran)
	4:10pm-4:30pm	<i>Title TBC - brain science (Dr. Anna Mitchell)</i>
6pm	The Laboratory, 17 West Belt, Lincoln 7608	Evening Dinner sponsored by Thermo Fisher Scientific

Day 4: Thursday 5th December 2024

9:40am - 10:30am	Lincoln University Waimarie Inaka	Morning: Session 8
	9:40am - 10:30am	Morning: Session 8: Quantifying the nanoworld: measuring mechanical properties with high-resolution AFM (Dr. Elena Taran)
10:30am - 10:45am	Lincoln University Waimarie foyer	Morning tea
		<i>NOTE: no food or drinks allowed in the Inaka lecture room</i>
10:45am - 11:30am	Lincoln University Waimarie Inaka	Session 8 continued
	10:45am - 11:05am	Illuminating the response of tumour suppressor p16INK4a to oxidation in human cells. (Alex Botha)
	11:05am - 11:35am	Spectroscopy coupled microscopy applied to speciation of air particulate matter (Dr. Cherie Tollemache)
11:35am	Lincoln University Waimarie Inaka	End of Conference Announcements (and prizes)
12:00pm	Lincoln University Waimarie Inaka	MicroscopyNZ AGM
2:00-4:00	Lincoln University TBC	Workshop: Training topaz models for improved particle picking in single particle cryoEM

Day 5: Friday 6th December 2024

Time	Location	Workshops
		Morning Sessions
10am - 12pm	Lincoln University Waimarie foyer	Advancing fluorescence microscopy using real-time computational clearing: Leica Thunder. Sponsored by Bio-Strategy - Part of DKSH Group
10am - 12pm, 2 - 4pm	AgResearch, Ahuwhenua room	Image analysis: FIJI for Quantification. Sponsored by Plant & Food Research (includes lunch)
10am - 4pm	University of Canterbury, Engineering lecture theatre E5	Atomic force microscopy correlated infrared spectroscopy. Sponsored by Coherent Scientific. (includes lunch)