CAB newsletter 1 August 2025

You are receiving this as a member of the Centre for Applied Bioinformatics (CAB)

Not yet joined CAB? Well if you are receiving this you already have joined, but if you know anyone who would like to join, then please forward this message and they can now sign up using a simple web form from the members page at https://www.appliedbioinformatics.com.au/Members.php

News:

Following the success of the joint Pawsey/CAB metagenomics workshop last semester, we are following up with a workshop on the use of alphafold, please see below for details. Please also see exciting news on the new Nectar VM system being established at Pawsey. This will provide an outstanding resource complementing the Setonix supercomputing infrastructure. The Centre for Applied Bioinformatics is aligned with the UWA Master of Bioinformatics and we continue to search for projects for students to undertake, so if you are interested in hosting one of these students, please let me know. Students may also contact you directly if your details are listed on the CAB membership page. If you would like to advertise any events, jobs, scholarships or spread bioinformatics news, please get in touch.

Infrastructure:

Nimbus server update

ARDC have announced the new <u>ARDC Nectar Research Cloud Node</u> at Pawsey to come online by the end of October 2025. The new node will comprise over 6,000 virtual cores of compute resources for virtual machines (VMs), with 500 TB of fast NVMe drives for volume storage. Root disks for VMs will be stored in 90 TB of NVMe storage directly on the compute nodes, to provide lower latency.

Pawsey are also offering a fast tract access path to simplify the process for users to gain experience on their advanced supercomputer system.

Researchers are encouraged to trial the ARDC Nectar Research Cloud capabilities in the lead up to the launch. Learn how to <u>start your free trial</u> or <u>register for upcoming</u> training.

Training:

In partnership with Pawsey, CAB invites you to an **AlphaFold workshop** for a deep dive into structure prediction and analysis! Start with an expert-led lecture at 10:30, led by Dr Timothy Soh, a visiting researcher from Hamburg, Germany, followed by guided exercises on making and visualizing predictions using AlphaFold, ChimeraX, and Foldseek. Learn how to extract confidence scores and analyze metadata with Python. Perfect for researchers ready to explore protein structure in practice.

Draft program:

1030	AlphaFold lecture
1130	Exercise: Alphafold predictions
1200	lunch
1300	ChimeraX and Foldseek
1330	Exercise: Visualizing predictions
1400	Extracting confidence scores
1430	Exercise: Alphafold metadata analysis – python
1530	Closing remarks

The event is free but attendance is limited. Please register at: https://pawsev.org.au/event/alphafold-workshop/

Jobs:

Bioinformatics Research Officer at the OceanOmics Centre at UWA

Full-time appointment on a fixed term basis for 2 years.
Base salary range: \$83,212–\$92,231p.a. plus 17% superannuation.
Please see here for more information.

Research Fellow in Bioinformatics (UWA)

A three-year postdoctoral applied bioinformatics position is available in the Edwards group. For more information, please contact dave.edwards@uwa.edu.au

Jobs wanted:

Gagan Jot Kaur recently completed her Master of Bioinformatics at UWA and is currently seeking research-focused opportunities in academia or industry. She has strong expertise in NGS analysis, genome assembly, and annotation, with particular interest in plant genomics, conservation biology, and agricultural innovation. She is proficient in HPC environments and scripting in Bash, Python, and R. Please contact Gagan directly if you have a suitable position at 23986697@student.uwa.edu.au

Conferences and seminars:

COMBINE Symposium and ABACBS Conference

Abstracts are due by 8 August 2025
Early Bird Registration ends 26 September 2025
Registration closes 17 November 2025
More information, registration, and abstract submissions here

APBConnect - Melbourne

APBConnect Melbourne 2025 is a one-of-a-kind networking and knowledge-sharing afternoon hosted by the ABACBS Professional Bioinformatics Community (APBC). The theme will be Bridging Academia, Industry and Innovation in Bioinformatics. Expect valuable industry insights, engaging sessions on entrepreneurship and career pathways, and the official launch of the Australian Bioinformatics Services Alliance.

Location: WEHI Auditorium, Parkville, Melbourne

Date: Tuesday, August 26, 2025

Time: 1:30 PM - 5:30 PM AEST

Register for free here!

Professor Lianmin Chen will visit UWA as a UWA Institute of Advanced Studies Visiting Fellow from Wednesday 6th to Thursday 7th August 2025. Prof L. Chen was awarded a PhD in Bioinformatics from the University of Groningen (Netherlands) in 2021. He has led a research group since 2021 at Nanjing Medical University, Nanjing, China.

Workshop: Microbiome analysis in population studies; Wednesday 6th August, 2 - 5 pm, Bryant Stokes Seminar Room, ground floor (SNRI Building, Ralph & Patricia Sarich Neuroscience Institute). In this workshop, Professor Chen will discuss methods to manage and analyse large databases. Participants are encouraged to discuss their research within the framework of the stated topic.

https://events.humanitix.com/workshop-microbiome-analysis-in-population-studies

Public lecture: The human gut microbiome and cardiometabolic health. Thursday 7th August, 5 - 6.30 pm, Bayliss Building G33

https://events.humanitix.com/human-gut-microbiome

If you wish to have a one-on-one meeting with Prof Chen, please contact Associate Professor Dominique Blache (dominique.blache@uwa.edu.au).

Calling all bioinformatics students:

COMBINE is the Australian computational biology and bioinformatics student society. Students can subscribe at https://www.combine.org.au/. This year we are fortunate to have our own COMBINE WA representative, Jevin Parmar, based at the Harry Perkins Institute. Jevin has been particularly active in developing local training supported by COMBINE CAB. For further information on COMBINE, please contact Jevin directly.

Projects for Masters student dissertations

The UWA Master of Bioinformatics continues to expand. We are always looking for new hosts for dissertation projects. Please email dave.edwards@uwa.edu.au if you would like to host a student for their bioinformatics Masters dissertation.

PhD Scholarships available

The UWA applied Bioinformatics group is seeking candidates. Projects are available in the areas of **plant genome bioinformatics** as well as the **application of machine learning for trait association**. Please contact <u>dave.edwards@uwa.edu.au</u> for details.