

Friday, 28 March 2025

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ACDS is Now on Bluesky!



ACDS has landed on Bluesky! For seminar updates, research news, and more — follow us and stay connected with the cell death community. [🔗 https://bsky.app/profile/auscelldethsoc.bsky.social](https://bsky.app/profile/auscelldethsoc.bsky.social)

ACDS Mentorship Program Workshop Series Begins!

In February, we launched the ACDS Mentorship Program, connecting EMCRs with leaders in the cell death field. Thank you to all who signed up, and a special thanks to our mentors for their generous support.

We're now excited to kick off the 'Rapid Fire' Professional Development Workshop Series!

◆ Workshop 1: Research Career in Industry

📅 **Wednesday, April 2nd**

🕒 **9:00–9:30 AM AEDT** (4:00–4:30 PM San Francisco)

🎤 **Dr. Kim Newton, Genentech**



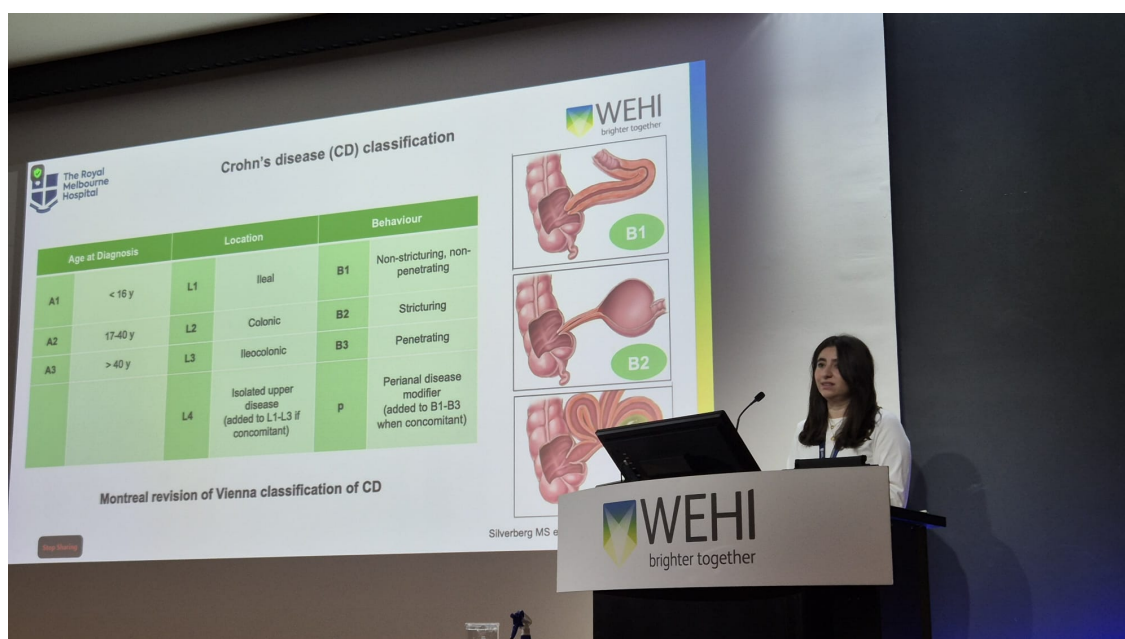
Dr. Newton will share insights on industry careers, how they differ from academia, and practical tips for those exploring this path. Calendar invites have been sent to mentees— see you there!

Celebrating a Successful Welcome Seminar

We kicked off 2025 with an electrifying start at the Cell Death Welcome Seminar and Networking Event!



The event featured an inspiring talk by Prof. Seth Masters, Lab Head at the Hudson Institute, who shared groundbreaking insights into the gene variants driving inflammasome-associated diseases.



We were also thrilled to have Dr. Aysha Al-Ani from WEHI, who presented her cutting-edge translational research on cell death and inflammatory bowel disease.



With 72 engaged participants joining both in-person and online, the event was a resounding success. A huge thank you to our generous sponsors for making this exciting event possible!



We have an exciting array of seminars lined up in the coming months, including the first **ACDS x ECDO International Seminar** which will be held on **May 7th**. Stay

Professional Development Award Opens in April!



ACDS Professional Development Award
for Postgraduate Students and Early Career Researchers in the society

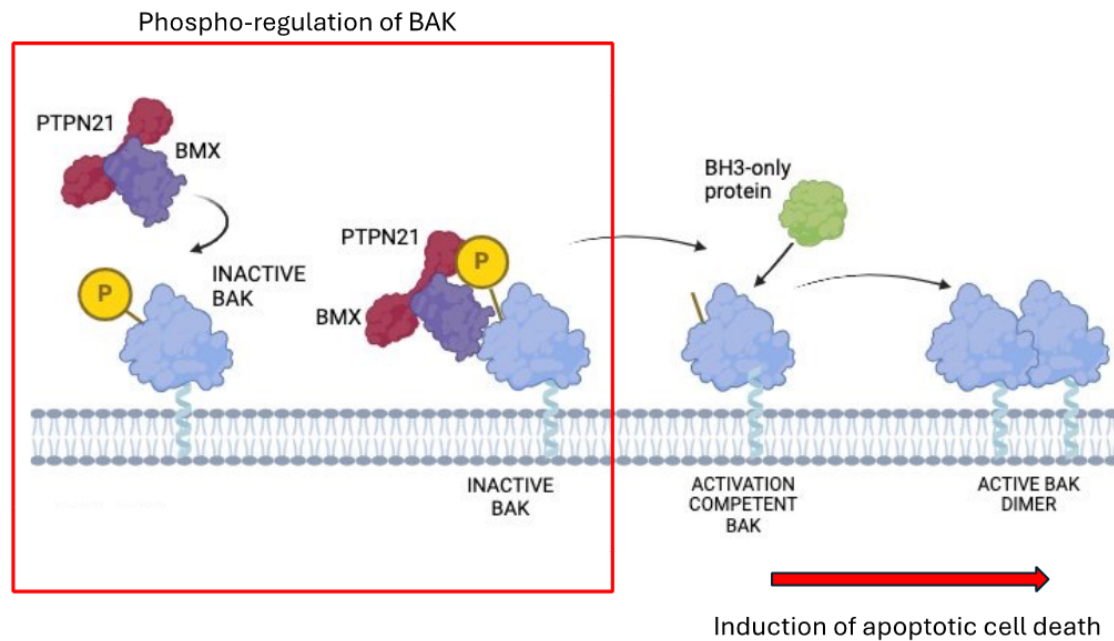
COMING SOON

Every year, ACDS offers various awards for early career ACDS members to support their professional development or travel to conferences. We are preparing to launch the Professional Development Award for 2025 in April. Watch the space!

Featured Scientist: Dr. Joanna L Fox

**A bit about Dr. Fox**

I am a Group Leader in the Leicester Institute of Structural and Chemical Biology and Lecturer in Structural Biology and Biochemistry at the University of Leicester, UK. I obtained my PhD in Molecular Pharmacology at the Institute of Cancer Research, London, UK working on the pharmacological inhibition of the molecular chaperone HSP90 with Prof Paul Workman. I then continued my career at the University of Oxford, UK where I developed my interest in the regulation of apoptotic cell death, specifically how activation of BAK, one of the mitochondrial pro-apoptotic effector proteins is controlled and whether these regulatory pathways can be targeted for the treatment of cancer. My second post-doc at the MRC Toxicology Unit, University of Cambridge extended my research into the regulation of apoptotic cell death pathways, specifically the determination by electron microscopy of the molecular architecture of Caspase-8 containing complexes. In 2018 I established my independent research group at the Leicester Institute of Structural and Chemical Biology at the University of Leicester. My current research focuses on determining the composition and structural architecture of the protein complexes that regulate commitment to BAK dependent mitochondrial cell death using a combination of structural and biophysical techniques including protein crystallography, NMR, computational biology and cryo-EM.



Joanna L Fox, Ferina Ismail, Abul Azad, Nicola Ternette, Sabrina Leverrier, Mariola J. Edelmann, Benedikt M. Kessler, Irene M. Leigh, Sarah Jackson and Alan Storey. Tyrosine dephosphorylation is required for Bak activation in apoptosis. **EMBO J. 2010 29:3853–3868** [This is a pivotal paper within the BAK research field as it is the first demonstration of a previously uncharacterised mechanism for the regulation of the initiation of BAK activation. It was selected as an editors highlight in **Science 2010:1588.**]

Joanna L Fox and Alan Storey. BMX Negatively Regulates BAK Function, Thereby Increasing Apoptotic Resistance to Chemotherapeutic Drugs. **Cancer Res 2015 75(7): 1345-55.**

Joanna L. Fox, Michelle A. Hughes, Xin Meng, Nikola A. Sarnowska, Ian R. Powley, Rebekah Jukes-Jones, David Dinsdale, Timothy J. Ragan, Louise Fairall, John W. R. Schwabe, Nobuhiro Morone, Kelvin Cain & Marion MacFarlane. Cryo-EM structural analysis of FADD:Caspase-8 complexes defines the catalytic dimer architecture for co-ordinated control of cell fate. **Nature Comms 2021, 12(1):819.**

We asked Dr. Fox some questions

What decisions made the biggest impact or have proved to be the most beneficial for your career, and what advice would you give to up-and-coming cell death researchers?

The decision that has had the biggest impact on my career was to take on a structural biology project during my second post-doctoral position. I trained as a

structural biology techniques particularly cryo-electron microscopy and gave me a greater appreciation of the power of structural biology to address critical biological questions. Often protein structure/conformation determines protein function in apoptosis signaling and understanding this relationship continues to be one of the central focuses in my own lab. The advice I would give up-and-coming cell death researchers is don't be afraid to try or learn new techniques as this can give you a new viewpoint and perspective on your research questions.

What motivates you to get into the lab?

I love going into the lab to do experiments. I am motivated by curiosity and a drive to understand how apoptosis signalling works and is regulated. Lab research allows me to use cutting-edge technology to address new biological questions and find out things no one else knows! I love talking to the members of my lab and colleagues in the field about their results and working together to form and test new hypothesis that will contribute to our understanding of cell death.

What is your favourite form of cell death and why?

My favourite form of cell death is apoptosis, because the complexity and integration of these pathways into so many other cellular processes is fascinating and has many implications in health, aging and disease. Plus, the fact we can use Cryo-electron microscopy (one of my favourite techniques) to visualise what these critical apoptosis protein complexes look like is a bonus!

Outside the lab what do you enjoy doing for fun or in your spare time?

Outside the lab I enjoy spending time with my family going for bike rides, gardening and playing board games – the crazier the better!

ACDS Member Publications

Published a cell death paper recently? Let us know and we'll list it here

Jinson S, Zhang Z, Lancaster GI, Murphy AJ, Morgan PK. Iron, lipid peroxidation and ferroptosis play pathogenic roles in atherosclerosis. *Cardiovasc Res*. 2024 Dec 31:cvae270. doi: 10.1093/cvr/cvae270. Epub ahead of print. PMID: 39739567.

Yeap HW, Goh GR, Rosli SN, Pung HS, Giogha C, Eng VV, Pearson JS, Hartland EL, Chen KW. A bacterial network of T3SS effectors counteracts host pro-inflammatory responses and cell death to promote infection. *EMBO J*. 2025 Mar 24. doi: 10.1038/s44318-025-00412-5. Epub ahead of print. PMID: 40128366.

A, Tate MD. NLRP3 deficiency abrogates silica-induced neutrophil infiltration, pulmonary damage and fibrosis. *Respir Res.* 2025 Mar 21;26(1):109. doi: 10.1186/s12931-025-03192-y. PMID: 40119408; PMCID: PMC11929224.

Lancaster GI, Murphy AJ. GPX4 methylation puts a brake on ferroptosis. *Nat Cell Biol.* 2025 Mar 21. doi: 10.1038/s41556-025-01640-x. Epub ahead of print. PMID: 40119200.

Zhang P, Whipp EC, Skuli SJ, Gharghabi M, Saygin C, Sher SA, Carroll M, Pan X, Eisenmann ED, Lai TH, Harrington BK, Chan WK, Youssef Y, Chen B, Penson A, Lewis AM, Castro CR, Fox N, Cihan A, Le Luduec JB, DeWolf S, Kauffman T, Mims AS, Canfield D, Phillips H, Williams KE, Shaffer J, Lozanski A, Doong TJ, Lozanski G, Mao C, Walker CJ, Blachly JS, Daniyan AF, Alinari L, Baiocchi RA, Yang Y, Grieselhuber NR, Campbell MJ, Baker SD, Blaser BW, Abdel-Wahab O, Lapalombella R. TP53 mutations and TET2 deficiency cooperate to drive leukemogenesis and establish an immunosuppressive environment. *J Clin Invest.* 2025 Mar 20:e184021. doi: 10.1172/JCI184021. Epub ahead of print. PMID: 40111422.

Nesic K, Rybinski K, Ratnayake G, Ho GY, Lim R, Radke M, Neagle C, Swisher EM, Wakefield MJ, Barker HE, Furuuchi K, Scott CL, Vandenberg CJ. Farletuzumab ecteribulin and MORAb-109, folate receptor alpha and mesothelin targeting antibody-drug conjugates, show activity in poor prognosis gynaecological cancer models. *Clin Transl Med.* 2025 Mar;15(3):e70274. doi: 10.1002/ctm2.70274. PMID: 40074693; PMCID: PMC11903193.

Yip RKH, Hawkins ED, Bowden R, Rogers KL. Towards deciphering the bone marrow microenvironment with spatial multi-omics. *Semin Cell Dev Biol.* 2025 Mar;167:10-21. doi: 10.1016/j.semcdb.2025.01.001. Epub 2025 Jan 30. PMID: 39889539.

Fischer FA, Demarco B, Min FCH, Yeap HW, De Nardo D, Chen KW, Bezbradica JS. TBK1 and IKKε prevent premature cell death by limiting the activity of both RIPK1 and NLRP3 death pathways. *Sci Adv.* 2025 Mar 7;11(10):eadq1047. doi: 10.1126/sciadv.adq1047. Epub 2025 Mar 7. PMID: 40053580; PMCID: PMC11887814.

Li K, Yap YQ, Moujalled DM, Sumardy F, Khakham Y, Georgiou A, Jahja M, Lew TE, De Silva M, Luo MX, Gong JN, Yuan Z, Birkinshaw RW, Czabotar PE, Lowes K, Huang DCS, Kile BT, Wei AH, Dewson G, van Delft MF, Lessene G. Differential regulation of BAX and BAK apoptotic activity revealed by small molecules. *Sci Adv.* 2025 Mar 7;11(10):eadr8146. doi: 10.1126/sciadv.adr8146. Epub 2025 Mar 5. PMID: 40043112; PMCID: PMC11881913.

Bourne CM, Raniszewski NR, Kulkarni M, Exconde PM, Liu S, Yost W, Wrong TJ, Patio RC, Mahale A, Kardhashi M, Shosanya T, Kambayashi M, Discher BM, Brodsky IE, Burslem GM, Taabazuing CY. Chemical Tools Based on the Tetrapeptide Sequence of IL-18 Reveals Shared Specificities between Inflammatory and Apoptotic Initiator Caspases. *bioRxiv [Preprint].* 2025 Feb 27:2025.02.23.639785. doi: 10.1101/2025.02.23.639785. PMID: 40060427; PMCID: PMC11888271.

Long GV, Shklovskaya E, Satgunaseelan L, Mao Y, da Silva IP, Perry KA, Diefenbach RJ, Gide TN, Shivalingam B, Buckland ME, Gonzalez M, Caixeiro N, Vergara IA, Bai X, Rawson RV, Hsiao E, Palendira U, Phan TG, Menzies AM, Carlino MS, Quek C, Grimmond SM, Vissers JHA, Yeo D, Rasko JEJ, Khasraw M, Neyns B, Reardon DA, Ashley DM, Wheeler H, Back M, Scolyer RA, Drummond J, Wilmott JS, Rizos H. Neoadjuvant triplet immune checkpoint blockade in newly diagnosed glioblastoma. *Nat Med.* 2025 Feb 27. doi: 10.1038/s41591-025-03512-1. Epub ahead of print. PMID: 40016450.

Lancaster GI, Murphy AJ. Do physiological changes in fatty acid composition alter cellular ferroptosis susceptibility and influence cell function? *J Lipid Res.* 2025 Feb 26;66(4):100765. doi: 10.1016/j.jlr.2025.100765. Epub ahead of print. PMID: 40021010.

Mark your Calendars for Upcoming Conferences

The Cold Spring Harbor Asia conference on Cell Death and Innate Immunity will be held in Suzhou, China, located approximately 60 miles west of Shanghai. The conference will begin on the evening of Monday **May 12th**, and will conclude on Friday **May 16th, 2025** [Find out more](#)



The 14th European Workshop On Cell Death

EWCD meetings are held bi-annually and have proved increasingly successful among the international cell death research community. Each one is held in a different European location, which is selected for its unique atmosphere. The EWCD is a broad spectrum scientific conference focussing on all aspects of cell death and lasts for four days in the spring/summer of every second year. This year's meeting will be held at Fiuggi, Italy from **May 11th to May 16th, 2025**. [Find out more](#)

EWCD 
May 11-16, 2025 in Fiuggi, Italy

Basics of cell death mechanisms & disease



MERCK



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