

# JAMES RENNIE BEQUEST

## REPORT ON EXPEDITION / PROJECT / CONFERENCE

<b>Expedition/Project/ Conference Title:</b>	Drosophila research conference
<b>Travel Dates:</b>	15 <sup>th</sup> March – 23 <sup>rd</sup> March 2025
<b>Location:</b>	San Diego, California, USA
<b>Group member(s):</b>	Pankaj Dhakad
<b>Aims:</b>	To present my PhD research, To hear latest research in Drosophila evolutionary biology, To expand my scientific network and to find a postdoc
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<b>Photography consent form attached:</b> (please refer to your award letter)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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### OUTCOME (a minimum of 500 words):-

Thanks to the generous support of the James Rennie Bequest travel award, I was able to attend the 2025 Drosophila Research Conference held in San Diego, California. This conference is one of the premier international gatherings for Drosophila researchers, offering a unique platform for presenting scientific discoveries, fostering collaborations, and staying abreast of cutting-edge research across diverse fields of Drosophila biology. My goals for attending were to present my PhD research, engage with the latest developments in Drosophila evolutionary biology, expand my scientific network, and explore postdoctoral opportunities.

As a final-year PhD student at the University of Edinburgh working on the evolutionary genomics of immune genes in Drosophila, this conference aligned perfectly with my research interests. My poster, titled “Comparative Genomics and the Evolution of Immune Genes in Drosophila”, showcased the results of a large-scale comparative analysis involving genome annotations across 304 Drosophilidae species. I presented findings on lineage-specific gene gain and loss, elevated gene turnover in immune pathways, and evidence of adaptive evolution in effector gene families. The poster session provided valuable exposure and led to several fruitful discussions with researchers working on immunity, gene family evolution, and comparative genomics. I received insightful feedback that I plan to incorporate into the manuscripts currently in preparation.

Beyond presenting my work, I attended numerous talks and poster sessions that broadened my understanding of Drosophila evolutionary biology, especially in areas such as host-pathogen interactions, regulatory evolution, and behavioral genomics. Of particular interest to me were sessions on experimental evolution, functional immune assays in wild drosophilids, and new comparative genomic tools, which relate closely to my own skill set and aspirations. Networking was another core goal of my attendance. I had the opportunity to meet and exchange ideas with fellow PhD students, postdocs, and senior researchers from institutions across Europe and North America. I was especially keen to connect with groups whose research complements mine and where I could potentially apply for a postdoctoral position. I had preliminary discussions with several PIs who showed interest in my background in comparative genomics, bioinformatics, and immune gene evolution.

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These interactions have already led to ongoing email conversations, and I am now preparing applications for postdoctoral fellowships with a clearer understanding of potential hosts and projects. Attending the conference also gave me insight into the broader academic landscape and career pathways available to researchers in evolutionary genomics. I attended a workshop on grant writing and early career fellowships, which provided practical advice on navigating the transition from PhD to postdoc. I left the conference feeling more confident and better informed about the steps I need to take over the next year.

In summary, the 2025 Drosophila Research Conference was an immensely valuable experience. I was able to present and receive feedback on my PhD research, learn about exciting advances in the field, build connections for future collaborations and employment, and gain career development insights. I am grateful to the James Rennie Bequest for enabling me to participate in this important scientific event at a pivotal stage in my career.