

Travellers' tales

Providing grants to attend scientific meetings



Adrian Higginbottom used a Biochemical Society Travel Grant to attend the FASEB Summer Research Conference 2002 (15–20 June 2002), which was titled 'Advances in Tetraspanin'. The conference was held in Tuscon, Arizona, and Adrian travelled from Sheffield, UK. Adrian's grant went towards his registration costs at the conference.

"The varied background of the attendees meant that the sessions covered topics from cell/viral fusion, adhesion and migration, immune function and neural protection," says Adrian. "Because of this, many techniques were discussed in the study of tetraspanin molecules, ranging from basic biochemistry, proteomics and RNA interference to the use of Affymetrix products. It was reassuring to observe that despite the different approaches to studying tetraspanins, the functional roles discussed have unifying themes."

Tetraspanins are transmembrane proteins. The common emerging theme is that an extracellular domain, EC2, contains specific protein–protein interaction sites, while the cytoplasmic domains provide docking sites for signalling molecules.

"Tetraspanin CD9 is known to be important for mouse fertility, as female CD9 knock-out mice are infertile," says Adrian. "We are interested if the large extracellular domain (EC2) of CD9 is essential for fertilization, and if so, which amino acids are critical."

Adrian's abstract was accepted for poster and oral presentation at the meeting. He has generated GST-fusion proteins of tetraspanin

EC2 proteins that are recognized by conformationally sensitive anti-bodies. "Both GST-CD9 and GST-CD81, but not GST-CD63, were able to bind specifically to mouse and hamster oocytes. Only GST-CD9 was able to inhibit sperm–egg fusion in a dose-dependent manner in both the homologous mouse and heterologous human–hamster (sperm–egg) *in vitro* fertilization (IVF) assays. We showed this observation was conformation dependent as cysteine mutants, which are not recognized by the antibodies, cannot inhibit sperm–egg fusion," says Adrian. "A series of point mutants that fold correctly, identified three amino acids as being essential for function."

"While I was in Tuscon, I was fortunate enough to take a drive through the Sonora Desert to see the Arizona-Sonora Desert Museum just outside old Tuscon. The advice to get there early is definitely to be adhered to — not to avoid the queues, but to avoid the midday sun! It was a fascinating zoo, natural history museum and botanical garden plonked in the middle of the desert."

www.biochemistry.org

Guidelines for Applications

The rules and regulations for applying for a Travel Grant are strict and can be viewed in full at www.biochemistry.org where you can also obtain an application form. The main points are listed here for your information:

1. The Travel Grants Committee meets six times a year with closing dates for applications of 1st January, 1st March, 1st May, 1st July, 1st September and 1st November. Applications received after these closing dates will not be considered. Furthermore, applications should be for meetings or visits which take place at least one month after a particular closing date.
2. One original plus four photocopies of a completed application with enclosures should be submitted by post to Alison McWhinnie, Assistant Director, Personnel and Administration, The Biochemical Society, 59 Portland Place, London W1B 1QW. All parts of the form should be completed — if necessary writing "not applicable" for some sections. Applicants must be able to demonstrate that the most cost-effective form of transport and accommodation is to be utilized. Faxed and e-mail applications will not be accepted.
3. New members may apply for their first Travel Grant after they have been a member of the British Biochemical Society for 1 year by the relevant closing date, although applicants will not be eligible if they have been awarded a Student Travel Grant within the last year. Furthermore, applicants will not be eligible if they have been awarded a Travel Grant from the Society during the previous 2 years.
4. Applications which do not comply with the full set of guidelines will not be considered.