

Three inspirational scientists bring medical research to life for students in

BALLARAT and SEBASTOPOL - JUNE 17th AND 18th

HIV therapy, male and female infertility

Double Trouble: Advances in HIV and Hepatitis B Treatment

More than thirty million people are infected with HIV in the world. A cocktail of drugs is used to stop HIV in its tracks, but people still continually succumb to disease from other viral pathogens. **Dr Megan Crane** is a postdoctoral fellow studying HIV and Hepatitis B virus (HBV) co-infections at the Burnet Institute in Melbourne.

Crane's research is to determine how the body copes with the adverse effects of the drugs, as well as the multiple infections. HIV therapy reprograms the immune system and increases the chance for HBV infection or any number of viral infections that are masked by HIV. She explains, "A proactive regime treatment is used, where we treat the HBV infection first, then tackle the HIV. Our lab contributes to a multi-centre international study of individuals infected with both HIV and HBV virus. We study how the immune system of these individuals responds to the two viruses and to drug treatment".

Crane hopes to travel overseas to places like Africa and India where HIV and HBV are endemic to get "some hands-on experience one day."

Medical researcher talks to students about male infertility

Dr Claire Borg is a postdoctoral fellow at Monash Institute of Medical Research at the Centre for Reproduction and Development. When asked what inspired her to pursue a career in medical research she said, "I never planned it, it kind of just happened. I went into the honours program at Monash Uni after doing my Science degree and had such a blast I never left. Now I research the inherited genetic causes of male infertility". Borg is enthusiastic about her work, "I like that it never feels like a job and that things are constantly changing so you don't have a chance to get bored. Traveling is tops and I love the chance to talk to researchers anywhere in the world". Borg has recently co-authored a study-aid book for VCE science students called "Biotechnology" (Oxford University Press).

Female Infertility Research: What Makes A Healthy Baby?

Ms Michelle Bertucci is a first year PhD student at Prince Henry's Institute in the Uterine Biology Group and is following her dream career. "I have just always been interested in medical research which has followed on from enjoying the science I did in high school. I did a Science degree then undertook the honours program and loved it." Bertucci talks passionately about her research project, "I investigate female infertility and look at the molecular interactions and formations of the placenta and the factors that are affected by this process. In the future, these factors could be used to identify healthy embryos to be used in IVF. I enjoy the fact that my research will one day help people and make a difference in their lives."

Bertucci has recently shared her findings with experts at two national conferences, one in Melbourne and the other in Adelaide. After completing her PhD studies Bertucci intends to take up a postdoctoral job overseas to broaden her scientific skills and get experience living in a different country.

- **Megan Crane**, Postdoctoral Fellow, Burnet Institute. Megan's research is part of an international study of individuals infected with both HIV and Hepatitis B virus, to assess how the body's immune system responds to these infections and to treatment.
- **Claire Borg**, Postdoctoral Fellow, Monash Institute of Medical Research. Claire's research focuses on finding the genes responsible for causing infertility in males using mouse models.
- **Michelle Bertucci**, PhD student, Prince Henry's Institute, Uterine Biology Group. Michelle is interested in finding the factors responsible for infertility in females, specifically in identifying factors that produce healthy embryos for IVF.

For more information or to speak to the researchers, please contact Shehnaaz Manji (0402 146 690) or Shahan Campbell (0433 113 454). High resolution photographs are available upon request.

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