

GSK: PEOPLE MAKING A DIFFERENCE

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ANNETTE Gross is recognised as a leading expert in Ethnopharmacology and has been invited on many occasions to present at International Scientific Conferences and to Government Authorities in this very important area of health research.

By sharing her knowledge and experience in this way she is helping to develop understanding of this cutting edge science that benefits patients

Q: WHAT IS ENTHNOPHARMACOLOGY?

Dr Gross: "It's looking at differences in drug response across ethnic groups. People from different ethnic groups have the potential for different drug responses and therefore a drug or drug dose may need to be tailored to a patient's ethnicity."

Q: WHAT DOES YOUR JOB ENTAIL?

Dr Gross: "GSK medicines are used in patients around the world and increasingly clinical trials are done on a global basis with patients from different countries and ethnic groups included. In ethnopharmacology we look at factors that can contribute to inter-ethnic differences in drug response among patients and whether they might apply to our medicines in development. My team also contributes to the design and evaluation of studies in ethnic groups or evaluates global studies to understand whether ethnicity is an important contributor to different responses."

Q: WHY IS IT SO IMPORTANT TO UNDERSTAND DIFFERENCES IN THE WAY ETHNIC GROUPS RESPOND TO MEDICATIONS?

Dr Gross: "Medicines should be effective and safe in patients, irrespective of ethnicity. If a particular ethnic group has a higher drug concentration after being given the same dose, they have an amplified response to the drug and possibly side effects. Alternatively the concentrations may be low and the dose might not be adequate, as a result the desired benefit may not be achieved."

Q: IS IT KNOWN WHY THESE ETHNIC DIFFERENCES EXIST?

Dr Gross: "A number of factors contribute to inter-ethnic

differences in drug response. There is very good recent research which provides a much better understanding of the contribution of genetics to variation in drug response in individuals and in turn between populations. We're seeing that some of the genes which might be important for drug response can differ in frequency in Asian and European ancestry.

"Genetics is not the only factor to consider different populations might be of smaller average weight, the environment can differ and so on."

Q: HOW ARE THESE CHALLENGES BEING OVERCOME?

Dr Gross: "There are some examples where different doses are recommended for people based on their ethnic background. A drug called rosuvastatin, which is used to decrease cholesterol levels, recommends on its US label that Asian people start at half the dose of Western people. It is also quite clear with one of the older, very widely used drugs called warfarin, which is used to stop blood clotting, that Asian people require lower doses than European people."

Q: WHAT IMPLICATIONS ARE THERE FOR MULTI-CULTURAL AUSTRALIA?

Dr Gross: "Our main focus of ethnopharmacology at GSK is to help support drug development programs in Asia. In some Asian countries the regulatory authorities are asking how relevant is the clinical trial data obtained principally from people of European ancestry in Europe, Australia or North America.

"But, of course, if there is a difference in Asian people it would normally be expected to apply to Asian people whether they are residents in Asia or residents in Australia. So it's definitely got relevance to multi-ethnic populations."

Q: WHAT DRIVES YOU IN YOUR ROLE?

Dr Gross: "The goal is to ensure GSK medicines will be used optimally in all cases. We want to make sure drugs are developed which will be effective and safe in all populations. Contributing to the development of new medicines, which can make a difference to patients' lives, that's the real driver."•