

Medical Chronicle

SA's Research Ranks with the World's Best

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Dr Schalk van der Merwe, a gastroenterologist in private practice who also heads gastro and hepatology research at the University of Pretoria, believes that SA's medical research is on a par with the best in the world and that South African researchers can therefore more than hold their own on the world stage. Over the past few years, Van der Merwe and his team have published 25 peer-reviewed clinical papers in such respected publications as *Gut*, *Clinical Genetics*, *Human Genetics* and the *Journal of Hepatology*. "We've proved that you don't need vast amounts of money to be able to do excellent research and that by building relationships and collaborating with other researchers worldwide we, as South Africans, can do world-class work."

Van der Merwe was recently invited to join the Emerging Leaders' programme, the only South African to be accorded the honour thus far. This programme is an initiative by a number of universities throughout the world to bring together the best researchers under 40 in the field of gastroenterology. The two-year programme of mentoring and advancement allows them to share ideas, form research alliances and learn from the expertise of international leaders in the field, such as Professor Guido Tytgat. "It was a great honour to be chosen, especially as the applicants came from all over the world," says Van der Merwe. "The programme also offers invaluable guidance in respect of presenting at conferences and applying for grants, for example."

Current projects

Van der Merwe's team is currently engaged in three areas of research. The first of these involves a bio-artificial liver assist device for use in patients with acute liver failure. "We now have a prototype three version that's being tested in an animal model of acute ischaemic hepatic failure," says Van der Merwe. Their experiences to date were published in the *Biochemical Engineering Journal* last year.

A particular interest of Van der Merwe's team is hepatic osteodystrophy - liver disease associated with osteoporosis. The research team is currently looking at the effects of parenchymal inflammation, portal hypertension and porto-systemic shunting on the development of bone loss in animal models. "We showed in a rat model that the shunting of blood past the liver led to osteoporosis and that by using the immunosuppressant, rapamycin, we were able to improve bone parameters in rats." These findings were published in *Gut* in 2003.

The third area of focus is the natural history and transmission of *Helicobacter pylori* in an African context. The researchers are following a rural population, studying disease trends such as cancer risk. Their findings to date were presented at a plenary session during Digestive Diseases Week last year.