Mr Chancellor,

Professor Elizabeth Molyneux, whom we are honouring today, is a truly remarkable and unique woman who has dedicated her life to helping children in the resource-challenged countries of sub-Saharan Africa. Her inspirational, caring and compassionate leadership in so many areas of paediatrics has resulted in a huge improvement in outcomes for countless African children. She has inspired a generation of paediatricians, general practitioners, paramedics and nurses to provide excellent care on minimal resources. It is impossible to do her true justice in so short a citation but I will attempt to do so here in the time available. I would also like to illustrate her life and achievements by drawing upon that well-known book 63 Famous Malawian Proverbs.

Let us start with two proverbs. If you are going to bathe, get thoroughly wet. Or, If you dip your arm into the picklepot let it be up to the elbow. Elizabeth Molyneux received her medical training at the University of London and achieved postgraduate qualifications too numerous to mention. In 1974, she moved with her husband Malcolm to Malawi, where she has lived for the most part ever since. She is now the Professor of Paediatrics at the College of Medicine and the Queen Elizabeth Central Teaching Hospital in Blantyre. Under her leadership, the paediatric department there has been transformed into a well-established and productive unit in terms of patient care, admitting approximately 25,000 children per year.

Another Malawian proverb: If you have, give; if you need, seek. Among her peers, Professor Molyneux is widely regarded as one of the best clinical

paediatricians, with an exceptional ability to make clinical diagnosis without many investigations, and to care for each child in a kind and compassionate By her own example, she teaches students and graduates how to provide excellent patient care and how to find new ways in which quality and delivery of clinical services can be improved. In Malawi's medical school and National Hospital, where she continues to work in so-called retirement ex gratia, she puts clinical care first, taking part in on-call duties and insisting that nobody has a right to do research or to teach if the sick are not properly cared for. She has played a leading part in many teaching programmes throughout Africa (including the Malawian Medical School) and is an external examiner for four African medical schools. One of her former students, Simon Bailey, now Professor of Paediatric Neuro-Oncology here at the Northern Institute for Cancer Research, confirms that she is an inspiring teacher and mentor, putting in many hours instructing younger colleagues and students. He says that she is universally loved and admired both for her work and the manner in which she carries it out. Or as another Malawian proverb has it: Gold is a debt we can repay, but kindness not till our dying day.

Professor Molyneux has contributed extensively to the improvement of clinical services across Africa. She is a Founding member of Emergency Triage, Assessment and Treatment (ETAT) a training course for the World Health Organization, and has personally delivered courses in many African countries on this method of improving emergency care of very sick children. These always involve training local participants to become teachers and demonstrators at local hospitals and health centres. In Malawi, ETAT has significantly reduced child mortality. She is also a Women's Medical Federation representative on the Medical Commission for Accident Prevention, a WHO Expert on Meningitis; a Member of the International

Advisory Board of *The Lancet* and of the WHO Committee on Pain Management in Children; an Associate Editor of the *International Journal of Lung and Thoracic Disease* and *International Journal of Emergency Medicine*.

Professor Molyneux has also produced an impressive research output, with over 225 peer-reviewed papers, as well as countless invited talks and presentations at international scientific and medical meetings. Her research is aimed at improving clinical service – leading, for example, to appropriate therapy for bacterial meningitis, management of seizures in children, estimating drug doses without weighing machines, drug regimens for treatment of childhood cancers, and antibiotic policies for neonates.

Professor Molyneux's career is littered with outstanding and groundbreaking achievements. She set up the first Paediatric Oncology Unit in Malawi and has single-handedly built a unit which provides cancer care for children there. Her ability to form and lead international collaborations has also stimulated development in other African countries. In Malawi, she was instrumental in developing appropriate and successful treatment for endemic Burkitt lymphoma, and instituted the practice of Kangaroo Care, in which the premature baby is kept close to the mother's skin. This has significantly reduced the morbidity and mortality rate of premature infants in Malawi. She has been responsible for raising the money and overseeing the building or refurbishment of many of the resources at the Queen Elizabeth Central Teaching Hospital in Malawi, including the paediatric oncology ward, the special care baby unit and the nursery, the construction of the Kangaroo Care unit, and the building of an entirely new special care ward for children. She has helped to develop a low cost CPAP (Continuous Positive Airways Pressure) machine that is manufactured from cheap parts easily available in

Africa. This has saved the lives of many Malawian children, and is now being rolled out to other African countries and worldwide. She is a world expert on the treatment of meningitis and its complications and has performed a number of clinical trials that have been published in leading journals, including *The Lancet*. She has had a number of honours bestowed upon her. These include the Order of The British Empire (2007) for services to medicine in Africa; an Honorary Fellowship of the Royal College of Paediatrics and Child Health (2008); a Pioneer Award, Society of Doctors in Malawi (2008); and the William Rutherford International Award (2009).

Professor Molyneux has a longstanding association with the Medical School here at Newcastle University, which makes a significant contribution to furthering the University's global vision and ethos. *Just as a bamboo cane forms a round jet of water, so taking counsel together makes men and women of one mind.* Newcastle has of the country's leading paediatric oncology centres, and clinicians here have worked in partnership with her and her team in Malawi. This collaboration has led to new protocols to treat cancer types such as acute lymphoblastic leukaemia, eye tumours (retinoblastoma) and low grade brain tumours. A charity in Newcastle (Children with Cancer in Malawi) helps Professor Molyneux's team by providing chemotherapy drugs and paying some of the nurses' salaries. This collaboration has now extended to the laboratory with projects headed by Professor Anthony Moorman and Dr Vikki Rand. Newcastle University also provides much clinical input and advice both in terms of diagnostics (via a microscope camera) and basic MRI images and treatment.

It is said in Malawi *the more shoots, the more leaves*. This is true on a personal as well as professional level in the Molyneux household. Somehow, Elizabeth and her husband Malcolm, himself an Emeritus

Professor with a distinguished career in malaria research, have also found time to raise four healthy and successful children. One of their children, Ben, was delivered by his father Malcolm in a mission hospital in a remote part of Malawi since the nurses had gone home, and I understand that during labour, Elizabeth gave him instructions on what to do. Ben is now a dentist specialising in implantology in London. Their daughter Sassy is a social scientist in Kenya, Matt is an anaesthetist in Bristol, and Sam is an orthopaedic and trauma surgeon in Edinburgh. Between them, they have produced Elizabeth and Malcolm's ten grandchildren, with an eleventh due any day.

Mr Chancellor, to conclude with a final Malawian proverb, *Rocks need no protection from the rain*. Elizabeth Molyneux's contribution to her field is truly monumental. Her selfless, dedicated, caring and inspirational approach has changed the lives of millions and inspired generations of medical professionals. It is for this reason that I present her to you as a candidate for the degree of Doctor of Science, *honoris causa*.

Citation by Professor Helen Berry, 10 July 2014