



## Editorial

Surgery-performing robots and congenital heart defect-curing laser beams may sound like concepts plucked from a (poor quality) science fiction film. However, as the tenth edition of the TSMJ reveals, imagination and innovation have made them a reality.

Medicine has travelled a long road, from the simple landscapes of Hippocratic teachings to the complex metropolis of modern practice. Once attributing all ailments to one of the four "humours", the profession has been driven by creativity, tempered with scientific methodology, to a destination where the word "impossible" has been replaced by "not possible yet". We live in an era where bypass machines keeps bodies alive while heart vessels are remade; where the simple prick of a needle saves countless lives that would succumb to tuberculosis; where sophisticated molecular drugs dramatically improve life expectancy of those infected with HIV.

The TSMJ embraces this spirit of originality and resourcefulness, providing students with a vehicle to contribute to the creativity and research that have fuelled the progression of the discipline for centuries. The journey is not complete and it is the students of today that will be the pioneers of new ideas, techniques and treatments tomorrow.

But as this roaring motor powers us into new realms of possibility, some are being left behind in the dust. While sophisticated angiogenesis inhibitors are embraced in the treatment of colorectal carcinoma and epigenetic therapies are evaluated for breast malignancies, the management of cancer in many developing countries consists of paracetamol and discharge home to die. As the Western world is exploring ingenious microinvasive surgeries for increasingly intricate procedures, African hospitals are performing operations with literally no monitoring equipment and using ketamine-induced anaesthesia. And though infections such as measles and HiB have been relegated to remote memory by comprehensive vaccination programmes here, thousands of children lose their lives to these preventable infections every day in the developing world.

Relentless advancement is hurling medicine to breathtaking destinations, but as we proceed on our journey the distance between "us" and "them" is ever-growing. Can persistent pushes towards progress be justified if they serve the elite minority alone? Should we continue to use our ingenuity to steer medicine further along the road to brilliance when so many are failing to benefit from discoveries and developments already made? These are questions that students must ask as we prepare to take the steering wheel for our part of the epic journey of medicine.

This edition of the TSMJ engages in the innovation and creativity that fuel this unending journey. It describes groundbreaking operations and procedures in the form of percutaneous aortic valve replacement, robotically-assisted paediatric surgery and radiofrequency ablation of accessory cardiac conduction pathways. Surprising new roles for bee venom, vitamin D and non-synthetic progestogens are considered, while novel approaches to cerebral palsy management are discussed. Reviews of multiple myeloma and multiple sclerosis explore the remarkable strides being made in molecular medicine, and our growing understanding of the field is evident in experimental work synthesising scaffolds for bone regeneration. Despite some astonishing advances, however, questions remain regarding their effective translation into better health, and this issue is highlighted by original research into the health of Irish schoolchildren and by an essay on the health literacy of our nation. Finally, interviews with two doctors who have followed unusual paths and reviews of two medically-themed books proffer a taste of the countless possibilities awaiting the medical graduate.

The distance that medicine has travelled is extraordinary, and an essential spirit of innovation continues to push the boundaries of possibility. The tenth edition of the TSMJ seeks to kindle enthusiasm for this inspiring legacy and to prompt consideration of the roles and responsibilities we have in this ongoing endeavour. Students today will be the future leaders of medical advancement. What direction that advance will take, rests with us.

**Laura Gleeson**  
Editor in Chief 2009

## CONTENTS

### ORIGINAL RESEARCH

Comparative evaluation of three different collagen-ceramic composite scaffolds for use as alternatives to bone grafts | page 33

A study of the diet and lifestyle of Irish school-aged children | page 47

### REVIEWS

Percutaneous aortic valve replacement | page 3

Application of robotic surgical systems in paediatric surgery | page 7

Bee venom therapy: a sting in the tale of rheumatoid arthritis? | page 15

Physiotherapy in the integrated approach to management of deviated gait patterns in cerebral palsy | page 19

An insight into the great debate on hormone therapy: are its effects on breast density the link to breast cancer development? | page 25

Multiple Myeloma: pathogenesis and treatments | page 30

Multiple sclerosis: the most common neurological disorder of young adults | page 39

### CASE REPORTS

23 year old lady with recurrent palpitations: a case of Wolff-Parkinson - White syndrome | page 10

A case of disseminated tuberculosis disease with associated vitamin D deficiency in a 26-year old Indian man | page 22

### ESSAY

Health literacy in Ireland | page 44

### FEATURES

Interview with Dr. Niall Crumlish | page 14

Interview with Dr. Nicholas Mahony | page 43

Crossword | page 28

Book Reviews | page 51



page 7



page 36



page 40