

Centre for Human Anatomy Education (CHAE)

Newsletter

May, 2011



Update from the Director

It is just over 12 months since I took on the role as Director of the Centre and I thought a Newsletter might be a good idea to keep other staff in the Department of Anatomy and Developmental Biology, in our School and Faculty in general abreast of the events of the past year and things of interest coming up on the horizon.

Paul McMenamin

Changes to staff

Dr Monika Zimanyi moved from a lectureship post in the Centre to a Senior Lectureship position at James Cook University. Monika's contribution over several years in running BMS 2011, the Department's biggest unit other than the medical units, was highly valued and we are confident she will make a great contribution to JCU where she joins a very creative Head of Anatomy, Dr Claudia Diaz. Ms Adina Kleiner, a lecturer in the Centre, and Dr Gerry Ahern (Senior Lecturer) also departed at the end of 2011. Adina was highly involved in physiotherapy teaching for many years, while Gerry contributed to the MBBS. We wish them well in their future endeavours.

New Arrivals

Dr Colin McHenry, previously at the University of Newcastle, has joined the Centre. Colin completed his PhD 2-3 years ago in the field of computational biomorphology. He has published extensively including a first author paper in 'Science'. He has a range of interests including paleontology, craniofacial morphology of extant and extinct vertebrates and uses finite element analysis to relate morphology to function and eventually to ecology and lifestyle. He has a number of graduate students studying with him and has taken residence in John Bertram's old lab in 13C. We are confident that Colin will add a new dimension and valuable expertise to the team which will see the Centre becoming the leading Centre for anatomical science teaching and research in Australasia.

Inside this Issue

Update from the Director	1
Changes to staff	1
New Arrivals	1
Teaching changes	2
Prosections	2
Plastination	3
Changes in CHAE Facilities	3
Grants & publications	4-5

CHAE Newsletter, May 2011

Dr Priscilla Barker has joined us from University of Melbourne Dept of Anatomy & Cell Biology as a 0.4 appointment. Priscilla is a physiotherapist by training and obtained her PhD in Anatomy & Biomechanics at the University of Melbourne in 2005. Her research interests include vertebral column function and stability and the role of the thoracolumbar fascia. Priscilla is also possibly one of Australia's finest prosectors and prepared many of the specimens used in 'Anatomea' which has been developed by herself and A/Prof Norm Eizenberg. She has been assisting the Director in planning the layout of the new-look teaching spaces and has also been helping supervise prosectors over the summer vacation. Priscilla will take on a pivotal role in delivering anatomy into the year 1, 2 and 3 physiotherapy units. She will be aided in this by Ms Sophie Paynter, who whilst employed through the School of Physiotherapy, Peninsula Campus, has taken over much of the coordination of teaching of anatomy in this program and who is being encouraged to be an active member of the Centre 'Team'. The anatomy program for physiotherapy students in semester 1 this year has been proceeding very well and I thank Sophie and Priscilla, aided by a number of specialist physiotherapy demonstrators, for ensuring a high quality education for these students.

In a similar vein **Dr Wendy McLeod**, who has joined The Department of Medical Imaging and Radiation Sciences, will amongst her roles in that department assist in teaching anatomy to radiography students in years 1 and 2. Wendy is a medical graduate who has extensive experience teaching various biomedical science and allied health students at other universities. We hope Wendy will also feel welcome in the Centre and make a valuable contribution to enhancing the quality of one of our many teaching programs.

New Students : Mr Mu-Sen Kevin Chuang has commenced a PhD in the Centre, jointly supervised by Prof Ben Canny and Prof Paul McMennamin. Kevin will be looking at evidence basis for learning styles in anatomy and varying between the three Monash MBBS programs (Clayton, Gippsland and Malaysia).

Teaching Changes in last 12 Months

The main changes in 2010-2011 have been to the delivery format of the medical units. Students now do an equal combination of dissection, prosections, tutorials and imaging in each area. This has proved very popular. In addition 'body painting' has been trialed in 'Integrated Clinical Skills-Anatomy teaching' sessions. Lectures have been modified to deliver more conceptual material which proves difficult to deliver in the lab sessions. Attendance at practicals has been made compulsory as has the wearing of lab coats. As a result students are taking a more professional approach to their anatomy learning. There is also more interchange between teachers at Gippsland and Clayton which is enriching the experience of both cohorts of students.

Prosections

There have been no new prosections produced for over 15 years and many are 30-50 years old. Consequently we have begun a program of updating and improving the quality of the prosection collection in the Centre. Seven prosectors were employed over the summer break to commence what will be a 3-5 year program at least. Funding for the prosections has been provided by the Eric Glasgow Memorial Fund.

CHAE Newsletter, May 2011

Plastination

We have obtained assistance from the faculty to build a plastination facility. This technique, which replaces all the water in specimens with a plasticized rubber polymer, will allow us to permanently preserve prosected material and will allow us to provide specimens for the Gippsland medical school and colleagues at Peninsula Campus. We will still require some wet specimens but plastinated specimens will give us greater flexibility in how students from all areas access anatomical material. Mr Stephen Thompson will be attending a plastination workshop in Toledo, USA in July to help upskill him in this new technique.

Changes in CHAE Facilities in last 12 months

- Painting of the main 'Anatomical Sciences Teaching and Learning Resource Area'
- A new floor in the dissecting room and the learning resource area (to provide greater 'wet teaching' floor space)
- A new interactive white board/data projection system in Dissecting Room
- A new data projector in the main learning resource area
- Covering the walls in dissection room with 'Idea Paint' (turns walls into a whiteboard surface)
- Change to the layout, installation of shelving and creation of a 'node' or theme layout in main learning resource area
- Changes to entrance (see picture) and stairwell including painting and installation of new exciting graphics to make entrance more appealing
- Installation of new software on computers (laptops to be replaced by large screens in July)



Entrance to Resources Centre



Stairwell, Building 13C

CHAE Newsletter, May 2011

Grants and Publications 2010

Grants submitted: Two NH&MRC grants and one ARC grant have been submitted by Centre staff. Centre staff currently hold an equivalent number of grants.

Publications in 2010

Chinnery HR, Ruitenberg MJ, **McMenamin PG**. (2010) Novel characterization of monocyte-derived cell populations in the meninges and choroid plexus and their rates of replenishment in bone marrow chimeric mice. *J Neuropathol Exp Neurol*. 69:896-909. **IF 4.56**

Kezic JM and **McMenamin PG** (2010) The monocyte chemokine receptor CX3CR1 does not play a significant role in the pathogenesis of experimental autoimmune uveoretinitis *Invest. Ophthalmol. Vis. Sci*. 51(10):5121-7 [**IF: 3.528**]

Vukovic J., Blomster L.V., Chinnery H.R., Weninger. W, Jung S., **McMenamin P.G.**, Ruitenberg M.J. (2010). Bone marrow chimeric mice reveal a role for CX3CR1 in maintenance of the monocyte-derived cell population in the olfactory neuroepithelium. *J Leuk Biol* 88(4):645-54 (**IF 4.403**)

Chinnery, HR, Ruitenberg, MJ, **McMenamin PG**. (2010) Novel characterization of monocyte-derived cell populations in the meninges and choroid plexus and their rate of replenishment in bone marrow chimeric mice. *Journal of Neuropathology and Experimental Neurology*. 69 (9):896-909. **IF: 5.41**

McMenamin PG. (2010) There is more than one way to vascularise a retina: a lesson in convergent evolution from our marsupial cousins. *J Ophthal Photography*

Forrester, JV, Xu, H, Kuffova, L, Dick, AD, and **McMenamin, PG**. (2010) Dendritic cell physiology and function in the eye. *Immunological Reviews*, 2010 234(1): 282-304. [**IF: 10.1**]

Friend, J, Frances, S, McCulloch, J, Ecker, J, Breidahl, W, and **McMenamin PG**. (2010) Teres minor innervation in the context of isolated muscle atrophy. *Surg Radiol Anat*. 32(3): 243-9. [**IF: 0.782**]

Zinkernagel, MS, Petijean, C, Fleming, P, Chinnery, HR, Constable, IJ, **McMENAMIN, PG**, Degli-Esposti, MA. (2010) In vivo imaging of ocular MCMV infection. *Invest Ophthalmol. Vis. Sci*. 51 (1):369-74 [**IF: 3.528**]

Cherepanoff S, **McMenamin PG**, Gillies MC, Kettle E, Sarks SH. (2010) Bruch's membrane and choroidal macrophages in early and advanced age-related macular degeneration. *Br J Ophthalmol*. 94(7):918-25. [**IF: 2.917**]

Cucca YY, McLay SV, Okamoto T, Ecker J, **McMenamin PG**. (2010) The biceps brachii muscle and its distal insertion: observations of surgical and evolutionary relevance. *Surg Radiol Anat*. 32(4):371-5. [**IF: 0.782**]

Grants and Publications 2010 cont.

- Ang, G. G., Rozen, W. M., Vally, F., **Eizenberg, N.**, Grinsell, D., 2010, Anomalies of the flexor carpi ulnaris: clinical case report and cadaveric study, *Clinical Anatomy* 427-430.
- Chapuis, P., Fahrner, M., **Eizenberg, N.**, Fahrner, C., Bokey, L., 2010, Should there be a national core curriculum for anatomy?, *ANZ Journal of Surgery* 475-478.
- Soeding, P., **Eizenberg, N.**, 2010, The long-axis view identifies atypical anatomy during ultrasound guided interscalene catheter placement, *Anaesthesia And Intensive Care*, vol 38, 962-964.
- Louw, G., **Eizenberg, N.**, Carmichael, S., 2010, *The place of anatomy in medical education: AMEE Guide no 41*, Informa Healthcare, UK.
- Barker PJ**, Freeman AD, Urquhart DM, Anderson CR & Briggs CA. The middle layer of lumbar fascia can transmit tensile forces capable of fracturing the lumbar transverse processes: An experimental study. *Clinical Biomechanics* 2010 (E-Pub).
- Hughson MD, Hoy WE, Douglas-Denton RN, **Zimanyi MA**, Bertram JF. Towards a definition of glomerulomegaly: clinical-pathological and methodological considerations, *Nephrol Dial Transplant*. 2010 Nov 29. [Epub ahead of print]
- Hoy WE, Hughson **MD**, **Zimanyi M**, Samuel T, Douglas-Denton R, Holden L, Mott S, Bertram JF, Distribution of volumes of individual glomeruli in kidneys at autopsy: association with age, nephron number, birth weight and body mass index., *Clin Nephrol*.2010, 74: S105-12
- Lim K, **Zimanyi MA**, Black MJ., Effect of maternal protein restriction during pregnancy and lactation on the number of cardiomyocytes in the postproliferative weanling rat heart. *Anat Rec* . 2010 Mar;293 (3):431-7

Publications so far in 2011

- Chinnery HR, McLenachan S, Humphries T, Kezic JM, Chen X, Ruitenber MJ, **McMenamin PG**. (2011) Accumulation of murine subretinal macrophages: effects of age, pigmentation and CX3CR1. *Neurobiology of Aging*. In press.
- Altuntas A, Dagge B, Chin T, Palamara J, **Eizenberg N**, Wolfe, R; Kerr-Graham H , 2011 The effects of intramuscular tenotomy on the lengthening characteristics of tibialis posterior: High versus low intramuscular tenotomy *Journal of Children's Orthopaedics*. In press.