

MOLYBDENUM CRISIS

International

- There has been no further slippage in the repair schedule for the Chalk River reactor and it is expected to be back in operation in March.
- The European industry association AIPES has negotiated increased access to the Belgian and French reactors during the 6 month closure of the Dutch reactor, reducing the number of weeks of serious shortage from 15 to 4. However, the supply situation will be fragile.

National

- Supply of ^{99}Mo has been reasonably stable in recent weeks. However GE suffered two QC failures in early December which affected their market worldwide.
- A shortage will affect Covidien before Christmas, while GE is taking advantage of the holidays to complete the upgrade of their generator production line and there will be no generators available until 6 January.

Medium term

- In the USA, the American Medical Isotopes Production Act was passed on 5 November. It provides US\$163 million over 5 years to create a domestic supply, likely by upgrading the Missouri reactor. The use of highly enriched ^{235}U targets is to be phased out.
- Plans for replacement of the Dutch reactor are moving ahead, with the preferred location being the current site in Petten.
- A Canadian panel of experts released its report at the end of November, recommending rapid approval and construction of a new research reactor. Limited funding is requested for speculative technologies.
- The Canadian research council held a special competition with rapid turnaround and awarded \$6 million in funding for a total of 7 projects aimed at reducing dependence upon $^{99\text{m}}\text{Tc}$. The projects include more widespread use of ^{82}Rb for myocardial perfusion, ^{68}Ga agents for routine indications, and production of $^{99\text{m}}\text{Tc}$ by irradiation of ^{100}Mo in an existing network of medical cyclotrons. The latter project has already started.

Sources of information

- There is a useful editorial/commentary in the December issue of *Nucl Med Commun*.
- Weekly updates on the status of repairs at the Chalk River reactor are available at: www.nrucanada.ca
- The BNMS website (www.bnms.org.uk) remains the most useful source of current information. News items and communications from manufacturers are posted in a timely fashion.

15th European Symposium on Radiopharmacy and Radiopharmaceuticals



UKRG INITIATIVES

Radiopharmacy Workshop 2010

The annual workshop will again be held in the sleepy (and dry) town of Bournville near Birmingham. The date is Friday 15th January. Presentations will include: ⁹⁹Mo from ore to generator; an update on the uses of contrast media in radiology; the future for PET/SPECT tracers in nuclear medicine; and an update on the MHRA review of unlicensed medicines. The afternoon parallel sessions will look at aspects of quality assurance: end of session broth fills; sterility testing; and radiochemical purity testing. Last year the workshop was fully subscribed so please register early. If you haven't received a mailing please contact:

paul.maltby@ribuht.nhs.uk.

Postgraduate Course in Radiopharmacy

The next running of the Easter course will take place 15-18 March at King's College London. You should have already received an e-mailing about this. Registrations are coming in but there is still plenty of space. Please contact:

jim.ballinger@kcl.ac.uk.

European Symposium on Radiopharmacy and Radiopharmaceuticals

ESRR10 takes place in Edinburgh on 8-11 April. The abstract deadline has just passed, but the early registration discount is available until 8 February. I believe it is about 15 years since this meeting was held in the UK. This is always an excellent meeting both scientifically and socially, and this one promises nothing less. The conference centre and accommodation are in the old university section. Edinburgh is a spectacular venue, one of my favourite cities, with a rich literary history – Sir Walter Scott, Robert Louis Stevenson, Sir Arthur Conan Doyle – and medical curiosities including Burke and Hare, the body snatchers or “resurrection men”. JK Rowling, Ian Rankin, and Alexander McCall Smith all live on the same street. See the café where JK *didn't* write the first Harry Potter book! Let's support Alistair and his team!

<http://esrr10.eanm.org/>

BNMS 2010

While we want to encourage people to attend ESRR10, don't abandon BNMS, which is being held this year in Harrogate on 26-28 April. The advance programme is out. Invited talks include: research bureaucracy (Maria Palmer), regulatory hurdles to tracer development (Steve Mather), therapy for neuroendocrine tumours (Paul Maltby), and a session on response to the technetium shortage.

www.bnms.org.uk

REGULATORY ISSUES

ARSAC

The latest issue of the ARSAC Newsletter is available at www.arsac.org.uk

Feedback from recent MHRA inspections

Among the topics which have featured are:

- Quality management systems: recording, investigation, and close out of deviations; change control.
- Annual test of recall procedure.
- Service level agreements for quality assurance, maintenance, etc.

Pharmacovigilance

The committee had a presentation from the MHRA pharmacovigilance (“PV” to the insiders) unit. The importance of reporting even minor reactions was stressed, as it is only through the compilation of aggregate data that trends can be seen. The yellow card icon is on the home page at www.mhra.gov.uk.

WORKFORCE ISSUES

National Occupational Standards (NOS)

You may recall that a few years ago much time and effort was spent on this process, culminating with a set of 15 radiopharmacy NOSs promulgated via the Skills for Health website. We were recently informed that it's all changed: the radiopharmacy NOSs have disappeared and the standards have been mapped onto generic pharmacy and radiation protection NOSs. A subcommittee was immediately convened to examine the proposed mapping and substantial gaps became evident. This is being fed back to Skills for Health with the recommendation that the original NOSs be reinstated. Watch this space.

RESEARCH NEWS

Lung perfusion imaging

It's good when someone else can capitalise on an idea that you have been unable to pursue. At least that's what I tell myself. For about 15 years I have been trying to persuade collaborators with the appropriate technology to help develop a non-biological alternative to MAA. The desired product profile is easy to define: non biological origin,

appropriate size range, biocompatible, biodegradable over several hours, stable in the vial before and after labelling. During that time Malcolm Frier at Nottingham did prepare MAA using recombinant human albumin but the product was never commercialised. In the January issue of *European Journal of Nuclear Medicine and Molecular Imaging* there is a paper from France on ^{99m}Tc labelled starch particles for this purpose.

A completely different approach is being explored by the Montreal company Pulmo BioTech. They have developed a ^{99m}Tc labelled peptide called PulmoBind based on adrenomedullin for studying lung vasculature.

And finally, to bang on about one of my pet peeves: is molecular imaging only a buzzword, devoid of true meaning? Under the accepted definition, many but not all nuclear medicine procedures would be classed as molecular imaging. One which definitely would not is lung perfusion imaging. Unless you're writing a press release from the Society of Nuclear Medicine (and molecular imaging), who should know better, where they described a new SPECT/CT protocol for lung perfusion imaging as molecular imaging. There's nothing molecular about MAA; any old sludge with the appropriate size range would give the same information.

PEOPLE

- We are sorry to announce the death of Lindsey Halliburton from the Queen Elizabeth Hospital Birmingham. Lindsey was a vibrant member of the community and an enthusiastic participant on VirRad. You could almost hear her speak as you read her postings. Donations in her memory are invited to Marie Curie Cancer Care in Solihull.
- At its recent meeting the UKRG committee welcomed Jennifer Guille from Sydney Australia as an observer. The radiopharmaceutical scientists in Australia are facing many of the same challenges as us. However, some things can move faster in the colonies. Earlier in the year the group came to the decision that an accreditation programme was required. Within about 6 months Jennifer managed to get agreement for a degree level training programme and association with an accrediting body. We could learn from this.

INDUSTRY NEWS

Radiation monitors come with free replacement probe

Anyone who buys four or more Rad Monitor radiation contamination monitors from LabLogic Systems before the end of 2009 will receive a replacement probe completely free of charge. "Rad Monitors are exceptionally robust, but probes inevitably get damaged sooner or later because of day-to-day wear and tear," says LabLogic sales executive Scott Baker. "The cost of replacing a probe runs into three figures, so this offer gives a worthwhile discount on the cost of buying the new monitors." There are three Geiger Muller-based Rad Monitors available for detection of ^{14}C , ^{32}P , ^{33}P and ^{35}S : the general-purpose GM1, with a 28.5mm tube detector; the GM2, which has a larger end window (45mm; and the GM2-P for monitoring surfaces, with a pancake probe and a large diameter GM tube. Completing the range is the high-sensitivity, sodium iodide crystal-based SD10, which has a scintillation probe for detecting X-Rays as well as Gamma emitters such as ^{125}I and ^{99m}Tc .

Buy a counter, get a free radiation monitor

Until the end of 2009, LabLogic Systems is offering a free Geiger Muller radiation contamination monitor complete with source calibration certificate with all orders for its Triathler portable LSC / luminometer / gamma counter. The Triathler is a robust and compact single-well counter with simple one button operation. It can accept all vial sizes, from Eppendorf tubes up to 20 ml capacity, and over the years has proved itself as an indispensable portable monitoring device for many Radiation Protection professionals and research scientists. More than 1500 Triathlers have been sold and thoroughly tested world-wide since 1996 in all kinds of laboratories and under the most extreme of conditions, from deserts and jungles to ocean liners and oil rigs. The free radiation monitor offer is for any one of the GM monitors for detecting ^{14}C , ^{32}P , ^{33}P and ^{35}S in LabLogic's range, all of which receive full technical support. The GM2 and GM2-P are particularly useful for checking hands, clothing, and bench-tops while the SD10 is suitable for monitoring of ^{125}I , ^{32}P and many others.

UPCOMING MEETINGS

Molecular Imaging in Radiation Oncology (MIRO) 18-20 Mar, Brussels. www.estro.org

15th European Symposium on Radiopharmacy and Radiopharmaceuticals 8-11 April, Edinburgh. Abstract deadline 14 Dec. <http://esrr10.eanm.org/>

British Nuclear Medicine Society spring meeting 26-28 April, Harrogate. Abstract deadline 11 Jan. www.bnms.org.uk

Society of Nuclear Medicine annual meeting 5-9 June, Salt Lake City. Abstract deadline 6 Jan. www.snm.org

World Federation of Nuclear Medicine and Biology Congress 18-23 September 2010, Cape Town, South Africa. Abstract deadline 15 Mar. www.wfnmb.org



www.ukrg.org.uk

Editor: Jim Ballinger
Department of Nuclear Medicine
Guy's and St Thomas' NHS Foundation Trust
Great Maze Pond, London, UK, SE1 9RT
Phone: 020 7188 5521; Fax: 020 7188 4094
E-mail: jim.ballinger@kcl.ac.uk

Issue 2009 Q4 Published 14 December 2009

This and previous issues of the Newsletter are available from the UKRG web site and are posted in the library section at www.VirRad.org