Current challenges for bio-repositories: Europe

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Topics for discussion

- Capacities
- Cooperation
- Training
- Resources
- Transportation
IMPC alone will generate 5000 new lines over the next 5yrs
On going ENU mutagenesis programmes
PIs being encouraged to deposit lines
More stocks archived means more exports
Phenotyping data will fuel demand
Managing expectations – in particular delivery times is vital

EUCOMM delivery times
- shipped 77 days (median)
- pending 101 days (median)

EUCOMM Dec 2011
- 501 strains in EMMA

<table>
<thead>
<tr>
<th>Total number of individual lines requested</th>
<th>Total number of individual lines distributed</th>
<th>Total number of lines cancelled</th>
<th>Total number of current requests</th>
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<tbody>
<tr>
<td>TOTAL</td>
<td>1176</td>
<td>561</td>
<td>440</td>
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Long term funding

- Secure
- Long term
- EMMA - €9.9M/4yrs (FP7 competitive grant)
- IMPC – national and grant funding
- Cost recovery models
- Drive down costs
  - Freezing
  - Recovery
  - Transportation

www.emmanet.org

Cryo-workshop - CSIC
10.05.2012
EMMA/MMRRC/AMMRA/CMMR/APN
Hub to hub exchange – could be extended
Reinforce links
Cryo-workshop
Staff placements
Exchange ideas/data
Share specialist techniques
Klf14 rescued by CARD
MTAs (simplify)
- Rights to remain with the beneficial owner
- Restrictive with excessive reach through
- Enable ‘for-profit’ organisations to access resources
- Costly management exercise
- Can cause delays even between network partners
More visibility for repositories – outreach
Data display tools
Easy access to contemporary lab protocols
ISTT knowledge base
Greater understanding nomenclature
Dissemination of contemporary skills
Wider acceptance of frozen sperm
Course capacity
TJL ~28/yr
Card & RIKEN ~24/yr
EMMA ~28/yr (205 people)
>70% of stocks are requested as live mice

Promote shipment of embryos/germplasm
International transport

- Essential for some stocks
  - Germ free & complex genetics
  - Centres without recovery facilities
- Cost benefit of transport vs surgical rederivation
- Adverse ambient conditions
- Single issue groups
- **Airlines** (BA & Lufthansa stopped transporting animals)
- **Ferry ports** (UK – Mar 2012)
- **Air France KLM** – Currently the focus of activity.
- ‘If we are serious about ending vivisection then it is vital we cut off the supply of animals’
- **Global issue** – e.g. Aeroflot, Japan Airlines, Air China, China Southern Airlines and Philippine Airlines.
Multiple health status requirements

- European standard – FELASA
- 14 viruses; 10 bacteria; plus parasitology
- Variable health requirements
- Additional screens (Hantaan virus, P carinii)
- Wood derived substrates – China
- UK sourced bovine serum albumin - BSE
New approaches to shipping

- Unfrozen embryos/sperm
- Shipping embryos/sperm on dry ice
- Whole organ shipments - ICSI
- Make the sums stack up in favour of embryos and gametes
Concluding remarks

➢ Wider acceptance of frozen materials
➢ Better shipping options
➢ Secure funding opportunities
➢ More training
➢ Hub to Hub cooperation
New technologies

- New technologies – focus of this meeting
- New services
  - recoveries from gonadal tissues
  - recoveries from found dead males
  - cross species technologies – rat cryo
Cost benefit of transport vs surgical rederivation