CONFERENCE PROGRAM & PROCEEDINGS

14th Australasian Biotechnology Conference

Biotechnology - Food and Health for the 21st Century
Biotechnology - Food and Health for the 21st Century

PROGRAM
Sunday/Monday

SUNDAY 19 April

Opening ceremony and welcome mixer
Ballroom 6.00 - 7.30 pm

6.15 pm
Official opening:
Dr John Smeaton, Chair, Conference Organising Committee

MONDAY 20 April

Welcome address and keynote plenary
Glenelg Town Hall 8.45-9.55

8.45 am
Welcome address:
Prof Joan Dawes, President, Australian Biotechnology Association

Chair: Prof Joan Dawes, Australian Biotechnology Association
9.00 am
PL 1 Keynote Plenary: Nancy Millis Oration
Prof Adrienne Clarke, Lt Governor of Victoria
Biotechnology in the Third Millenium
Sponsored by CSL

Morning refreshment break
Ballrooms 3-5 9.55 - 10.25
Opening of the Trade Exhibition
Poster session 1 commences

Session 1
Ballroom 1 10.25 - 12.40

Agriculture: Transgenic animals
Chair: Prof Grant Sutherland, Women's & Children's Hospital, Adelaide

10.25 am
A 1 Dr Barry Powell, CRC for Premium Quality Wool, Adelaide
Changing wool properties by sheep transgenesis

11.00 am
A 2 Dr Peter Rathjen, University of Adelaide
Embryonic Stem (ES) cells: potential application to animal improvement and human gene therapy

11.35 am
A 3 Dr Ian Lyons, BresaGen, Adelaide
Progress and barriers to the isolation of ES cells from commercially important species

12.05 pm
A 4 Dr Panos Ioannou, Murdoch Institute for Research into Birth Defects, Melbourne
PAC/BAC cloning: New approaches for cloning and functional analysis of large genomic fragments

Session 2
Colley 10.25 - 11.35

Business: Biopartnering I: The money
Chair: G Steve Burrill, Burrill & Associates, San Francisco

10.25 am
B 1 Dr Sally Warneford, BBY, Sydney
Biotechnology investment indices

10.40 am
B 2 Dr Geoff Brooke, Rothschild Bioscience Unit, Melbourne
The Rothschild Bioscience Unit

11.00 am
B 3 Mr Daniel Phillips, Macquarie Bank, Sydney
Venture capital strategies for Biotechnology

11.15 am
B 4 Ms Lyndal Thorburn, Macquarie University, Sydney
External producer services such as finance help companies grow and can also help them to adapt to technological, economic and political changes

1998, ADELAIDE ix Australia
Session 3
Biotechnology - Food and Health for the 21st Century

Program

Monday

Session 3
Colley 11.35 - 12.40

Business: Biopartnering II: European partnering opportunities
Chair: Sir Gus Nossal, Australian Academy of Science

11.35 am  B 5  Dr Paul Wellings, Department of Industry, Science and Tourism, Canberra
New approaches to technology cooperation with Europe

11.50 am  B 5  Mr John Tuckwell, Delegation of the European Commission, Canberra
Scope for EU/Australia Science and Technology collaboration

12.05 pm  B 5  Case study 1: Apomixis in Agriculture
Dr Michiel van Lookeren Campagne, CPBRR, Netherlands
Project summary and benefits of collaboration from a European perspective
Dr Anna Koltunow, CSIRO Plant Industry
Benefits of collaboration from an Australian perspective

12.15 pm  B 5  Case study 2: Lactic acid bacteria as cell factories for the production and delivery of mucosal immunogens.
Dr Annick Mercenier, Institute Pasteur de Lille, France
Project summary and benefits of collaboration from a European perspective
Dr Patricia Conway, CRC for Food Industry Innovation, Sydney
Benefits of collaboration from an Australian perspective

12.25 pm  Panel Discussion

Session 4
Therapeutics: Natural product discovery
Chair: Dr Murray Tait, AMRAD Discovery Technologies, Melbourne

10.25 am  T 1  Dr Murray Tait, AMRAD Discovery Technologies, Melbourne
Australian and South East Asian biodiversity coupled with effective screening technologies in the search for novel drug candidates

11.00 am  T 2  Dr Takao Okazaki, Sankyo Co., Japan
Approaches in the search for useful novel microorganisms

11.35 am  T 3  Dr Dwight Baker, MDS Panlabs, USA
Rapid biochemical screening for discovery lead candidates using complementary characterised sample libraries

12.10 pm  T 4  Dr Lyndon Llewellyn, Australian Institute of Marine Science, Townsville
A high throughput, microtitre plate assay for paralytic shellfish poisons using the hydrophilic Saxitoxin specific receptor, Saxiphilin

Lunch
Sponsored by Watermark Patent & Trademark Attorneys
Poster session and Trade Exhibition

Session 5
Agriculture: Molecular-assisted plant improvement
Chair: Prof Peter Langridge, University of Adelaide

1.40 pm  A 5  Prof Qifa Zhang, National Key Laboratory of Crop Genetic Improvement, Huazhong Agricultural Uni, China
Genome studies and rice genetic improvement

2.10 pm  A 6  Prof Peter Langridge, CRC for Molecular Plant Breeding, Adelaide
Marker-assisted plant breeding

2.40 pm  A 7  Dr Eric Huttner, Groupe Limagrain Pacific, Canberra
Efficient ribozyme genes to protect melon plants against potyviruses

3.10 pm  A 8  Dr Michiel van Lookeren Campagne, Centre for Plant Breeding and Reproductive Research, Netherlands, & Dr Anna Koltunow, CSIRO Plant Industry, Adelaide
Apomixis in agriculture: a molecular approach

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Session 6

Business: Biopartnering III: The deal

Chair: Ms Mitzi Gilligan, Minter Ellison Lawyers, Melbourne

1.40 pm  B 6  Dr John Bates, CSL Limited, Melbourne
Why do it? The business aims and partnerships

B 6  Ms Mitzi Gilligan, Minter Ellison Lawyers, Melbourne
Key contractual issues

B 6  Dr Oliver Barrett, Minter Ellison Lawyers, Melbourne
Negotiation Techniques

This session will be run as a Workshop with audience participation in case studies-refer to Abstract B6

Session 7

Vaccines: Veterinary vaccines

Chair: Dr Michael Good, CRC for Vaccine Technology

1.40 pm  V 1  Dr Peter Willadsen, CSIRO Tropical Agriculture, Brisbane
Vaccination against ectoparasitic arthropods

2.10 pm  V 2  Dr Marshall Lightowler, University of Melbourne
Vaccines against cestode parasites

2.40 pm  V 3  Dr Richard Strugnell, CRC for Vaccine Technology, Melbourne
DNA vaccination against parasite infections

3.10 pm  V 4  Dr Albert Sasson, UNESCO, Paris
Biotechnology applied to the production of pharmaceuticals and vaccines

Afternoon refreshment break

Plenary Sessions

Chair: Dr Dave Dvorak, Robbins Scientific, Adelaide

4.10 pm  PL 2  Mr G Steven Burrill, Burrill and Associates, USA
Biotech '98 - an update

Chair: Dr Ray Rodgers, Flinders University, Adelaide

4.55 pm  PL 3  Prof Ian Wilmut, Roslin Institute, UK
Reproductive technologies

Trade Reception
## Plenary sessions

**Glenelg Town Hall 8.45 - 10.15**

**Chair:** Dr Allistair Ramsay, John Curtin School of Medical Research, Canberra

8.45 am  **PL 4**  
Sir Gus Nossal, Australian Academy of Science, Melbourne  
Biotechnology and the challenge of global immunisation

**Chair:** Dr Peter Anderson, Flinders University, Adelaide

9.30 am  **PL 5**  
Prof Ko Shimamoto, Nara Institute of Science & Technology, Japan  
Molecular biology and biotechnology of rice

### Morning refreshment break

**Ballrooms 3-5 10.15 - 10.45**

### Session 8

**Ballroom 1 10.45 - 12.45**

**Agriculture: Rice biotechnology**

**Chair:** Prof Ko Shimamoto, Nara Institute of Science of Technology

10.45 am  **A 9**  
Prof Ko Shimamoto, Nara Institute of Science of Technology, Japan  
Eating quality of rice regulated by splicing of waxy premRNA

11.15 am  **A 10**  
Dr Richard Jefferson, CAMBIA, Canberra  
Molecular strategies for apomixis in rice

11.45 am  **A 11**  
Dr James Peacock, CSIRO Plant Industry, Canberra  
Haemoglobin-enriched rice for alleviation of iron deficiency in humans

12.15 pm  **A 12**  
Prof Robert Henry, Centre for Plant Conservation Genetics, Lismore  
Practical applications of biotechnology in the Australian rice industry

### Session 9

**Colley 10.45 - 12.45**

**Business: International company forum I**

**Chair:** Dr Tim Kaethner, Economic Development Authority, SA Government, Adelaide

10.45 am  **B 7**  
Dr Trevor Jarman, Alizyme, UK  
Biotechnology company strategies in Europe

11.15 am  **B 8**  
Dr Meera Verma, BresaGen, Adelaide  
Injecting growth into your company

11.35 am  **B 9**  
Dr David Atkins, Johnson & Johnson Research, Sydney  
Partnering with Johnson & Johnson

11.55 am  **B 10**  
Dr John Ballard, GroPep, Adelaide  
Growth factors for corporate development

12.15 pm  **B 11**  
Dr Sue Mugglestone, HortResearch, NZ  
Talking about gene technology, a New Zealand perspective

12.35 pm  
Panel Discussion

### Session 10

**Ballroom 2 10.45 - 12.45**

**Vaccines: Vaccine technology**

**Chair:** Sir Gus Nossal, Australian Academy of Science

10.45 am  **V 5**  
Dr Allistair Ramsay, John Curtin School of Medical Research, Canberra  
New approaches for vaccination for AIDS and cancer

11.15 am  **V 6**  
Dr David Jackson, University of Melbourne  
Designer immunogens obtained by the controlled polymerization of synthetic peptides

11.45 am  **V 7**  
Dr Stephen Attridge, University of Adelaide  
Pathogenic and vaccine significance of toxin-coregulated pili of Vibrio cholerae El Tor.

12.15 pm  **V 8**  
Dr Annick Mercenier, Institute Pasteur de Lille, France &  
Dr Patricia Conway, CRC for Food Industry Innovation, Sydney  
Lactic acid bacteria as live vectors for oral and local vaccines
### Session 11  
**Agriculture: Reproductive technology**

**Chair:** Dr David Armstrong, University of Adelaide

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<th>Time</th>
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<th>Presenter</th>
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<tbody>
<tr>
<td>1.45 pm</td>
<td>A13</td>
<td>Ballroom 1</td>
<td>Dr Robert Seamark, CRC for Biological Control of Vertebrate Pest Populations, Canberra</td>
<td>Vertebrate pest control: Novel reproductive strategies</td>
</tr>
<tr>
<td>2.15 pm</td>
<td>A14</td>
<td>Ballroom 1</td>
<td>Dr Colin Earl, South Australian Research and Development Organisation, Struan</td>
<td><em>In vitro</em> embryo production from juvenile animals</td>
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<tr>
<td>2.45 pm</td>
<td>A15</td>
<td>Ballroom 1</td>
<td>Dr Ray Rodgers, Flinders University, Adelaide</td>
<td>Complete maturation of oocytes <em>in vitro</em>: Can it be done?</td>
</tr>
<tr>
<td>3.15 pm</td>
<td>A16</td>
<td>Ballroom 1</td>
<td>Dr Vishwanath, Livestock Improvement Corporation, NZ</td>
<td>Semen preservation - Alternative strategies</td>
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### Session 12  
**Therapeutics: Bioprocessing**

**Chair:** Prof Eric Dunlop, University of Adelaide & Prof Peter Rogers, University of New South Wales

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<th>Session</th>
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<th>Presenter</th>
<th>Title</th>
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<tr>
<td>1.45 pm</td>
<td>T5</td>
<td>Colley</td>
<td>Dr Neill Goss, CSL Bioplasma, Melbourne</td>
<td>From Cohn to chromatography: An evolution in technology</td>
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<tr>
<td>2.15 pm</td>
<td>T6</td>
<td>Colley</td>
<td>Dr Julian Davies, Industrial Research Limited, NZ</td>
<td>Outsourcing bioprocess development and toll manufacture</td>
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<tr>
<td>2.45 pm</td>
<td>T7</td>
<td>Colley</td>
<td>Dr Hazel Aranha, Pall Corporation, USA</td>
<td>Virus removal by membrane-based filtration systems</td>
</tr>
<tr>
<td>3.15 pm</td>
<td>T8</td>
<td>Colley</td>
<td>Prof Peter Rogers, University of New South Wales, Sydney</td>
<td>Evaluation of glucose and xylose fermentation by recombinant <em>Zymomonas mobilis</em></td>
</tr>
<tr>
<td>3.30 pm</td>
<td>T9</td>
<td>Colley</td>
<td>Prof Eric Dunlop, University of Adelaide, Adelaide</td>
<td>Scale up: Technology transfer and commercialisation - the role of the Universities</td>
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### Session 13  
**Vaccines: Manipulating immunity**

**Chair:** Amanda Walmsley, Boyce Thompson Institute, USA

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<th>Time</th>
<th>Session</th>
<th>Location</th>
<th>Presenter</th>
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<tbody>
<tr>
<td>1.45 pm</td>
<td>V9</td>
<td>Ballroom 2</td>
<td>Dr Steve Wesselingh, Flinders Medical Centre, Adelaide</td>
<td>Development of a plant-derived oral vaccines for measles</td>
</tr>
<tr>
<td>2.15 pm</td>
<td>V10</td>
<td>Ballroom 2</td>
<td>Dr R Bruce Johnson, NorthField Laboratories, Adelaide</td>
<td>Hyper immune colostrum: vaccination processing and passive protection</td>
</tr>
<tr>
<td>2.45 pm</td>
<td>V11</td>
<td>Ballroom 2</td>
<td>Dr Peter Hudson, CRC for Diagnostic Technologies, Melbourne</td>
<td>Design and expression of novel antibody-like molecules for cancer targeting</td>
</tr>
<tr>
<td>3.15 pm</td>
<td>V12</td>
<td>Ballroom 2</td>
<td>Dr Diane Webster, University of Otago, NZ</td>
<td>Immunising plants - single chain antibody fragments against the CI protein of Tamarillo Mosaic Potyvirus</td>
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**Afternoon refreshment break**

Ballrooms 3-5 3.45 - 4.10

**Plenary session**

Glenelg Town Hall 4.10 - 4.55

**Chair:** Dr Art Hohmann, Child Health Research Institute, Adelaide

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<tr>
<td>4.10 pm</td>
<td>PL 6</td>
<td>Glenelg Town Hall</td>
<td>Dr Amanda Walmsley, Boyce Thompson Institute, USA</td>
<td>Transgenic plants as vaccine vectors</td>
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</table>

**Wine tasting and bush dance**

Hardy's Winery, Reynella 5.20

Buses leave from the foyer of the Stamford Grand at 5:20.
**Plenary Session**

**Glenelg Town Hall 9.00 - 9.50**

**Chair:** Dr Barbara Sanderson, Flinders University of S.A., Adelaide

**9.00 am**  
**PL 7**  
**Prof Pam Russell, Prince of Wales Hospital, Sydney**  
Prostate cancer gene therapy

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**Morning refreshment break**

**Ballrooms 3-5 9.50 - 10.20**

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**Session 14**

**Ballroom 1 10.20 - 12.20**

**Agriculture: Food & wine**

**Chair:** Prof Peter Hoj, Australian Wine Research Institute, Adelaide

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<th>Session</th>
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<tr>
<td>10.20 am</td>
<td>A 17</td>
<td>Ballroom 1</td>
<td>Dr Martin Playne, CRC for Food Industry Innovation, Melbourne</td>
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<td></td>
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<td>Measuring health efficacy of probiotic and prebiotic foods</td>
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<tr>
<td>10.45 am</td>
<td>A 18</td>
<td>Ballroom 1</td>
<td>Dr Simon Robinson, CSIRO Plant Industry, Adelaide</td>
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<td></td>
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<td></td>
<td>New grapes from old: Biotechnology in viticulture</td>
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<tr>
<td>11.10 am</td>
<td>A 19</td>
<td>Ballroom 1</td>
<td>Dr Paul Henschke, Australian Wine Research Institute, Adelaide</td>
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<td>New generation wine yeasts</td>
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<tr>
<td>11.30 am</td>
<td>A 20</td>
<td>Ballroom 1</td>
<td>Prof Geoff Fincher, University of Adelaide</td>
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<td></td>
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<td></td>
<td>Protein engineering and enzyme stability in the malting and brewing industries</td>
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<tr>
<td>11.55 am</td>
<td>A 21</td>
<td>Ballroom 1</td>
<td>Dr Chris Grant, CRC for Food Industry Innovation, Sydney</td>
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<td></td>
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<td>Responses of yeast to oxidative stress</td>
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**Session 15**

**Colley 10.20 - 12.20**

**Business: International Company Forum II: Biotechnology in Canada**

**Chair:** Dr Rick Walter, BIOTECanada

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<th>Time</th>
<th>Session</th>
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<tr>
<td>10.20 am</td>
<td>B 12</td>
<td>Colley</td>
<td>Mr Jim Feir, Department of Foreign Affairs and International Trade, Sydney</td>
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<tr>
<td></td>
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<td>Canada: a global leader in biotechnology - perspectives &amp; opportunities</td>
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<tr>
<td>10.25 am</td>
<td>B 12</td>
<td>Colley</td>
<td>Dr Barbara Nyland, Alberta Science &amp; Research Authority</td>
</tr>
<tr>
<td>10.45 am</td>
<td>B 13</td>
<td>Colley</td>
<td>Dr Joyce Groote, BIOTECanada</td>
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<td></td>
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<td>Canada Moving towards commercial success</td>
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<tr>
<td>11.05 am</td>
<td>B 14</td>
<td>Colley</td>
<td>Dr Peter McCann, Ag-West Biotech, Canada</td>
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<td></td>
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<td>Successful commercialisation of agbiotech - the Saskatchewan experience</td>
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<tr>
<td>11.25 am</td>
<td>B 15</td>
<td>Colley</td>
<td>Dr Murray McLaughlin, Ontario Agri-Food Technologies, Canada</td>
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<td>Agriculture technology: The Canadian experience</td>
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<tr>
<td>11.45 am</td>
<td>B 16</td>
<td>Colley</td>
<td>Dr Rick Walter, BIOTECanada</td>
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<td></td>
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<td></td>
<td>About Biotechnology: The communications experience in Canada</td>
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<tr>
<td>12.05 pm</td>
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<td></td>
<td>Panel Discussion</td>
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**Session 16**

**Ballroom 2 10.20 - 12.20**

**Therapeutics: Growth Factors / Protein Engineering**

**Chair:** Dr Geoff Francis, GroPep, Adelaide & Dr Allan Robbins, BresaGen, Adelaide

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<th>Session</th>
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<tbody>
<tr>
<td>10.20 am</td>
<td>T 10</td>
<td>Ballroom 2</td>
<td>Prof Angel Lopez, Hanson Centre for Cancer Research, Adelaide</td>
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<td>Novel in vitro and in vivo properties of a human GM-CSF mutant</td>
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<td>11.00 am</td>
<td>T 11</td>
<td>Ballroom 2</td>
<td>Dr Geoffrey Regester, Child Health Research Institute, Adelaide</td>
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<td>A potent milk-derived milk factor preparation for treatment of chemotherapy-induced gut mucositis</td>
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<td>11.40 am</td>
<td>T 12</td>
<td>Ballroom 2</td>
<td>Prof Edouard Nice, Ludwig Institute for Cancer Research, Melbourne</td>
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<td>Structure - function studies for Human A33 antigen, a novel surface glycoprotein of Human gastrointestinal epithelium</td>
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**PROGRAM**

**Wednesday**

**Lunch**

Ballrooms 3-5 12.20 - 1.20

Poster Session and Trade Exhibition

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**Session 17**

**Environmental: Biological Control**

*Chair: Dr Warwick Grant, Flinders University, Adelaide*

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<thead>
<tr>
<th>Time</th>
<th>Ballroom 1 1.20 - 3.20</th>
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<tbody>
<tr>
<td>1.20 pm</td>
<td>E 1 Dr Danny Llewellyn, CSIRO Plant Industry, Canberra</td>
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<tr>
<td></td>
<td>Transgenic insect resistant crops</td>
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<tr>
<td>1.45 pm</td>
<td>E 2 Dr Ved Malik, US Department of Agriculture, USA</td>
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<tr>
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<td>Field testing and commercialization of insect resistant transgenic corn: a case study</td>
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<td>2.10 pm</td>
<td>E 3 Dr Peter Kerr, CSIRO Wildlife &amp; Ecology, Canberra</td>
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<td>Immunocontraceptives for wildlife population control: antigens and viral delivery systems for the European rabbit in Australia</td>
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<td>2.35 pm</td>
<td>E 4 Dr Terry Hanzlik, CSIRO Entomology, Canberra</td>
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<td>An insect small RNA virus offers new strategies for insect pest control</td>
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<tr>
<td>3.00 pm</td>
<td>E 5 Dr Ray Akhurst, CSIRO Entomology, Canberra</td>
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<td>Bacillus thuringiensis: potential and prospects</td>
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**Session 18**

**Business: Regulatory Issues**

*Chair: Dr John Smeaton, BresaGen, Adelaide*

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<th>Time</th>
<th>Colley 1.20 - 3.20</th>
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<tr>
<td>1.20 pm</td>
<td>B 17 Prof Joan Dawes, BioDiscovery, Sydney</td>
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<tr>
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<td>Over under and out? Are regulatory issues crippling Australian biotechnology?</td>
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<tr>
<td>1.35 pm</td>
<td>B 18 Dr Joyce Groote, BIOTECanada</td>
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<td>Regulatory issues in Canada</td>
</tr>
<tr>
<td>1.50 pm</td>
<td>B 19 Dr John Donohoe, Therapeutics Goods Authority, Canberra</td>
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<tr>
<td>2.05 pm</td>
<td>B 20 Mr Rob McInnes, Mallesons Stephen Jaques, Sydney</td>
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<td>Liability for products you neither designed nor made: Product liability exposures for technology licensors in the United States</td>
</tr>
<tr>
<td>2.20 pm</td>
<td>B 21 Mr Mark Christensen &amp; Mr Martin Williams, Russell McVeigh Mackenzie Bartleet, NZ</td>
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<td>Have the regulators finally caught up?</td>
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<tr>
<td>2.35 pm</td>
<td>B 22 Dr Alison Turner, National Regulatory Authority, Canberra</td>
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<td>Is our regulatory regime world-competitive?</td>
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<tr>
<td>2.50 pm</td>
<td>B 23 Mr Simon Brooke-Taylor, Australia New Zealand Food Authority, Canberra</td>
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<tr>
<td>3.05 pm</td>
<td>Panel discussion</td>
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**Session 19**

**General Biotechnology: Microbial Technology**

*Chair: Dr John Brooker, University of Adelaide*

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<tr>
<th>Time</th>
<th>Ballroom 2 1.20 - 3.20</th>
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<tr>
<td>1.20 pm</td>
<td>G 1 Dr Brian Dalrymple, CSIRO Tropical Agriculture, Brisbane</td>
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<td>Expression and secretion of a recombinant xylanase by strains of the ruminal bacterium Butyrivibrio fibrisolvens</td>
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<tr>
<td>1.45 pm</td>
<td>G 2 Dr Mathew Moore, CRC for Food Industry Innovation, Sydney</td>
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<td>Rapid bacterial identification using PCR-based 16s sequencing</td>
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<td>2.10 pm</td>
<td>G 3 Dr VVSR Gupta, CSIRO Land &amp; Water, Adelaide</td>
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<td>Herbicide effects on the microbial diversity in the rhizosphere of genetically modified and conventional cotton plants</td>
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<tr>
<td>2.35 pm</td>
<td>G 4 Dr Patrick Carnegie, Murdoch University, Perth</td>
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<td>Random peptide libraries in E.coli as a source of novel antigens</td>
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<td>3.00 pm</td>
<td>G 5 Dr Geoff Dumsday, University of Melbourne</td>
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<td>Phenotypic instability of Escherichia coli KO11 in a chemostat</td>
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**Plenary Session**

**Glenelg Town Hall 9.00 - 9.50**

*Chair: Dr Bruce Anderson, RMIT, Melbourne*

**9.00 am**

**PL 10**  
Prof Gary Sayler, University of Tennessee, USA  
Innovations and broad horizons for environmental biotechnology

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**Morning refreshment break**

**Ballrooms 3-5 9.50 - 10.20**

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**Session 20**

**Glenelg Town Hall 10.20 - 12.20**

**Environmental: Bioremediation**

*Chair: Dr Nick McClure, Flinders University of S.A.*

**10.20 am**  
**E 6**  
Dr Bruce Anderson, Royal Melbourne Institute of Technology, Melbourne  
International collaboration for advancing field bioremediation

**10.45 am**  
**E 7**  
Dr Greg Davis, CSIRO Land and Water, Perth  
Intrinsic (natural) bioremediation of BTEX compounds in groundwater

**11.10 am**  
**E 8**  
Dr Jürgen Thiele, Waste Solutions, NZ  
Styrene degradation bacteria degrade 1,1-diphenyl-ethylene

**11.35 am**  
**E 9**  
Mr Albert Juhasz, CSIRO Land and Water, Adelaide  
Bioaugmentation of PAH-contaminated soil: Effect on toxicity and PAH concentration

**11.50 am**  
**E 10**  
Dr Pak-Lam Yu, Massey University, NZ  
Molecular identification of a PCP consortium from contaminated soil

**12.05 pm**  
**E 11**  
Dr Jackie Aislabie, Landcare Research, NZ  
Co-metabolism of DEE by an anaerobic bacterium

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**Session 21**

**Agriculture: Aquaculture**

*Chair: Dr Bob Devlin, Fisheries and Oceans Canada*

**10.20 am**  
**A 22**  
Dr Stephen Moore, CSIRO Tropical Agriculture, Brisbane  
Gene mapping in penaeid prawns

**10.50 am**  
**A 23**  
Dr Zee Upton, CRC for Tissue Growth and Repair, Adelaide  
Insulin-like growth factors and aquaculture

**11.20 am**  
**A 24**  
Dr Daniel McGoldrick, CSIRO Marine Research, Hobart  
The Aquaculture CRC and Oyster genetics: New technologies in the domestication of edible oysters in Australia.

**11.50 pm**  
**A 25**  
To be arranged

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**Session 22**

**Business: Intellectual Property**

*Chair: Dr Gary Cox, Wray & Associates, Perth*

**10.20 am**  
**B 24**  
Ms Karen Ayers, Australian Intellectual Property Organisation & Dr Debra Yin Foo, Phillips Ormonde & Fitzpatrick,  
Directions of patent protection for food an health in the 21st century- the Australian perspective

**10.40 am**  
**B 25**  
Dr Charles Harding, D Young & Co, UK  
Who said there were problems with biotech patenting in Europe?

**11.00 am**  
**B 26**  
Ms Catherine Hustwick, Madderns Patent & Trade Mark Attorneys, Adelaide  
Patenting of biotech inventions

**11.20 am**  
**B 27**  
Ms Vivien Santer, Griffith Hack Patent & Trade Mark Attorneys, Melbourne  
Where the wild things are: The tension between traditional knowledge and patents

**11.40 am**  
**B 28**  
Dr Shoichi Okuyama, Okuyama & Co, Japan  
New trends in examination practice at the Japanese Patent office for biotech inventions

**12.00 pm**  
**B 29**  
Dr Denise Kettelberger, Merchant Gould, USA  
Hot topics at the US PTO
Session 23

Therapeutics: Drug Design and Delivery

Chair: Dr Peter Colman, Biomolecular Research Institute, Melbourne

10.20 am  T13  Dr David Nicolson, Chiron Technologies, Melbourne
Multiple parallel synthesis: Tools and techniques for efficient preparation of small molecule libraries

10.50 am  T14  Dr Dave Dvorak, Robbins Scientific, Adelaide
A flexible modular system for performing high throughput parallel synthesis of small molecules

11.20 am  T15  Dr Trevor Lockett, CSIRO Molecular Science, Sydney
A novel class of cationic transfection reagents for use in gene therapy

11.50 am  T16  Dr Andy Jane, AGEN Biomedical, Brisbane
Clot targeting: The magic bullet rides again

Lunch

Poster Session

Session 24

Business: Technology Transfer

Chair: Mr Robert Klupacs, AMRAD, Melbourne

1.20 pm  B30  Mr David Pritchard, AMRAD Operations, Melbourne
Valuation in the biopharmaceutical industry: placing tech transfer in a commercial context

1.50 pm  B31  Prof Peter Andrews, Centre for Drug Development and Design, Brisbane
Involvement in Australian Biotech start-ups-lessons learnt along the way

2.20 pm  B32  Dr Edwina Cornish, Florigene, Melbourne
Commercialisation of gene technology within the global cutflower market: Florigene's approach

2.50 pm  B33  Dr Jack Steele, CSIRO Molecular Science, Sydney
Biotechnology innovation at CSIRO and what we transfer to our partners

Session 25

Therapeutics: Diagnostics

Chair: Dr Andy Jane, AGEN Biomedical, Brisbane

1.20 pm  T17  Dr Bruce Cornell, CRC for Molecular Engineering & Technology, Sydney
The ion switch biosensor

2.00 pm  T18  Dr Phillip Morris, CRC for Diagnostic Technologies, Brisbane
Large scale DNA based testing for genetic disease

2.25 pm  T19  Dr Bill Kalionis, Flinders University, Adelaide
Non-invasive prenatal diagnosis: an application for the enrichment and identification of rare cells in blood

2.55 pm  T20  Dr Alan Hart, AgResearch Grasslands, NZ
Estimation of lactate in meat extracts by screen-print biosensors
Environmental: Water Quality

Chair: Dr Dennis Steffensen, CRC for Water Quality & Treatment, Adelaide

1.20 pm  E12  Dr Volker Haring, CSIRO Animal Health, Geelong
Biosensor for bugs

1.50 pm  E13  Dr Duncan Veal, Macquarie University, Sydney
Flow cytometry: A generic technology for automated microbial analysis

2.20 pm  E14  Dr Brett Neilan, University of New South Wales, Sydney
Assessment of blue-green algal bloom toxigenicity

2.50 pm  E15  Dr Bob Seviour, La Trobe University, Bendigo
Microorganisms which impact on wastewater treatment processes- the good, the bad and the bubbly.

Afternoon refreshment break

Plenary Session and Closing Ceremony

Chair: Prof Cindy Bottema, University of Adelaide

3.50 pm  PL11  Prof Grant Sutherland, Women’s & Children’s Hospital, Adelaide
Genomics

4.40 pm  Award of CRC for Tissue Growth and Repair Student Poster Prizes

4.50 pm  Closing Ceremony

Public Forum

Moderator: Mr Robyn Williams, Science Unit- ABC Radio

7.30 pm  Public Forum: Biotechnology and Society

Details of the Public Forum are on a separate Flyer