

Cell Therapy Commercialisation

Look, Think and Act from a different point of view

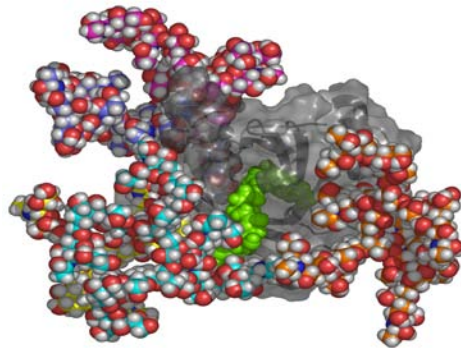
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Cell Therapies

A rapidly emerging therapeutic field with the potential to revolutionise the therapeutic industry

- Cells rather than pharmaceuticals
- Cells with pharmaceuticals



Erythropoietin



Red cell transfusion

What are the drivers ????

Aging Population

Increasing incidence of chronic, degenerative disease

- Cardiac
 - Renal
 - Respiratory
 - Autoimmune, including diabetes
 - Neurological
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- Ineffective pharmaceuticals: treat but do not reverse or cure
 - Lack of organ donors
 - Orphan diseases
 - Advances in biological research and biotechnology

What indications are being addressed clinically ?

Now

Haemopoietic malignancy
Inherited Metabolic disease
Orthopaedic
Musculoskeletal disease/damage
Cancer: cell based immunotherapy
Chronic Heart Disease
Crohn's Disease
Spinal cord injury
Lung and Kidney injury
Wounds
Burns

Future

- CNS
- Diabetes

Industry Players

Cytori Therapeutics, NOXXON Pharma AG

Mesoblast

Osiris Therapeutics Inc, Stem Cell Therapeutics Corp,

Calimmune, Gamida Cell-Teva

Genzyme, ViaCyte, KBI Biopharma, Invetech, Geron

Industry growth projections:

“in 2009, PwC predicted that the market for stem cell products would grow to between \$3 and 21billion in 2015”

The new science of personalised medicine: translating the promise into practice.
Pricewaterhouse Coopers LLP, London, UK 2009

Industry & Scientific Challenges

- Dose, route, cell type and function
- Proof of efficacy
- Scalable processes; new technologies essential!



- kSep® Technology
 - KBI Biopharma & Invetech
- Applications in cell therapy, vaccine production & protein manufacture

- Business Model

Session Speakers

- Geoff Symonds; CSO, Calimmune Australia.
- Killian Kelly; Director Regulatory and Clinical, Mesoblast Ltd.
- Sunil Mehta; Director Technology Development,
KBI Biopharma Inc.
- Ian Fitzpatrick; Manager Manufacturing Group,
Invetech Pty Ltd.