

September 2003

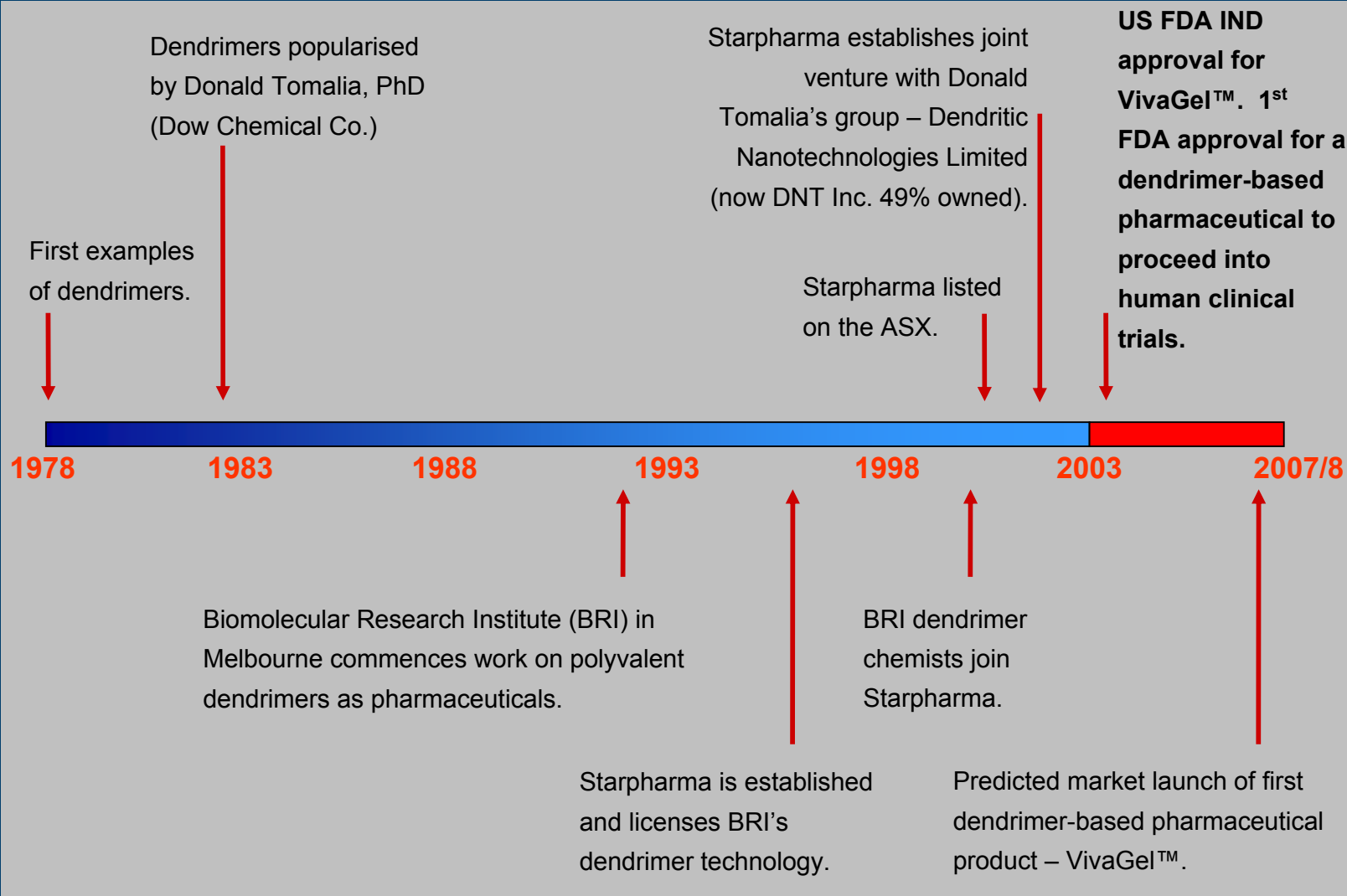
www.starpharma.com

Overview



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2. Polyvalence and Dendrimers
3. Intellectual Property
4. Development Pipeline
 - i. VivaGel™ - Vaginal Microbicide
 - ii. Respiratory
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Background to Starpharma



Achievements Since Listing on ASX



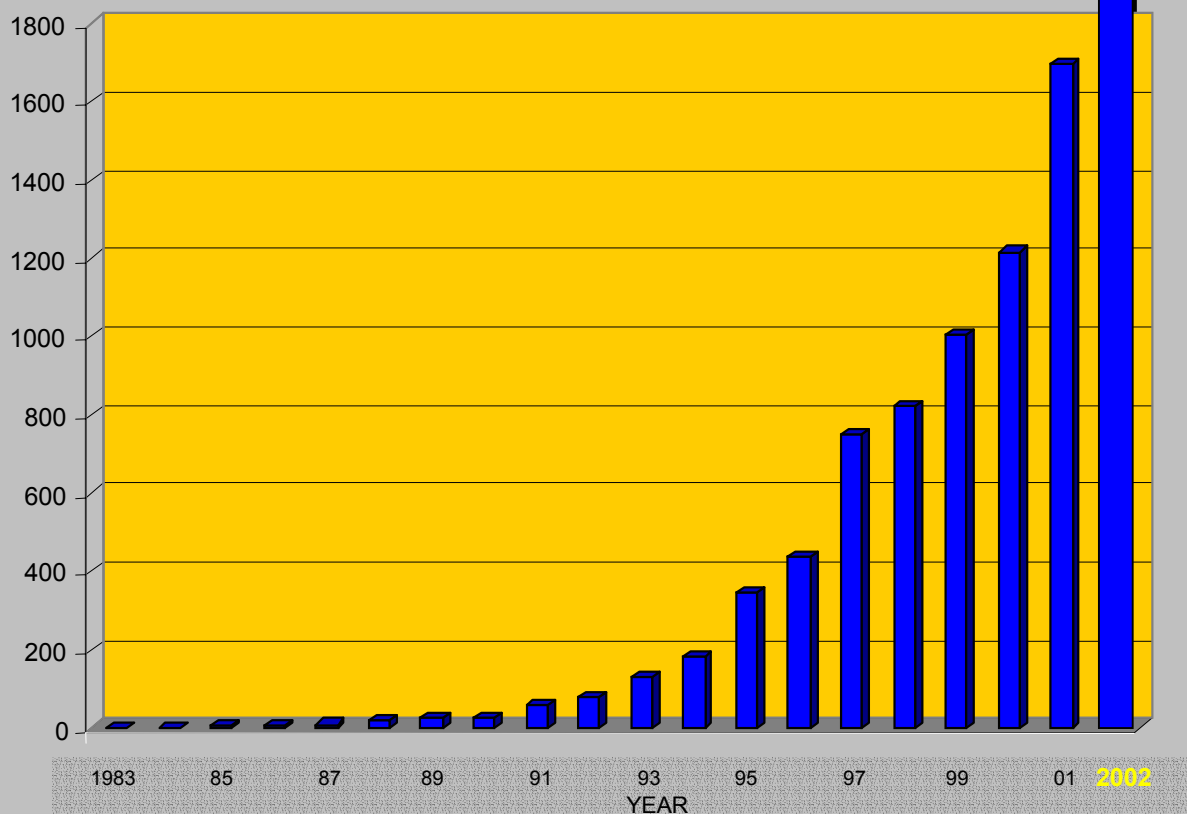
Achievements in the 3 years since listing include:

- Building quality in-house teams for successful development and commercialization, including:
 - chemistry;
 - intellectual property and commercial development; and
 - quality assurance and regulatory affairs.
- Establishment of world leading Dendrimer Company (joint venture) and successful subsequent migration to the US.
- Successful development of lead drug candidate SPL7013 through US FDA IND approval for human clinical trials (VivaGel™)
 - ✓ **1st IND US FDA approval for a dendrimer-based pharmaceutical product.**

Rapidly Growing Interest in Dendrimer Technology



- Approx. 2,500 new dendrimer publications in 2002
- Average 32% increase p.a. over 1998-2003

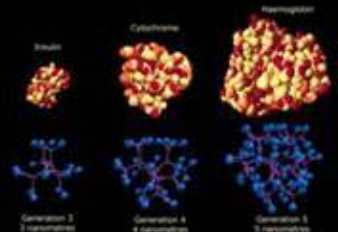
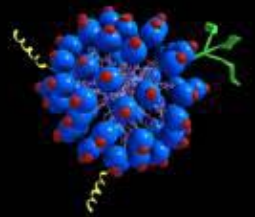
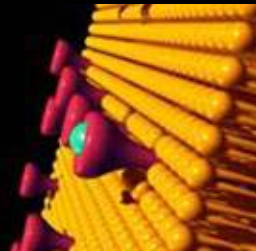
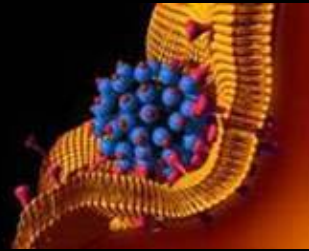


* Search of patents and scientific publications relating to dendrimers (all fields).

Polyvalence & Dendrimers as Drugs

Core Benefits

- ❑ Polyvalency provides a novel approach to drug discovery:
 - ✓ enables simultaneous attachment to a biological target at multiple sites;
 - ✓ significantly improves one or more of a drug's key therapeutic properties, (i) potency, (ii) duration of action or (iii) safety.
- ❑ (i), (ii) and (iii) are the critical areas where most unsuccessful drugs currently fail in clinical trials.
- ❑ Polyvalent drugs can enable big pharma to substantially improve therapeutic qualities of existing marketed drugs and also extend patent lives.



GlaxoSmithKline/Theravance US\$545m



- ❑ Significant interest is building in polyvalent drugs that can allow simultaneous binding to multiple sites on a target.

In early 2003, GSK entered into an alliance with Theravance, Inc. to develop next generation Respiratory Medicines, deal terms were:

- US\$545 million total deal value plus royalties
 - ✓ US\$50 million upfront payment;
 - ✓ US\$495 million clinical, regulatory and commercial milestone payments;
 - ✓ Double digit royalty on product sales
- Stage at signing – one compound in Phase I clinical trials.
- ❑ To date Theravance, Inc. has raised over US\$370 million in private equity capital.

Intellectual Property



TITLE	STAGE
Antiviral Dendrimers	Granted USA, Australia, NZ and Singapore
Angiogenic Inhibitory Compounds	Granted USA, Australia, NZ and Singapore
Antiviral Linear Polymers	Granted Australia and NZ
Antimicrobial & Antiparasitic Agents	Granted USA, NZ and Singapore
Inhibition of Toxic Materials or Substances	Granted NZ and Singapore
Agent for the Prevention and Treatment of Sexually Transmitted Diseases - I	PCT Stage
Agent for the Prevention and Treatment of Sexually Transmitted Diseases - II	PCT Stage
Chemotherapeutic Agents	PCT Stage
Method of Delivering An Active Agent	Provisional

Starpharma also has license rights to 33 patent families (182 issued patents) **and all future IP relevant to pharmaceuticals from Dendritic Nanotechnologies, Inc.**

R&D Pipeline



- ❑ Sexually Transmitted Diseases (HIV, Herpes & Chlamydia)
 - Prevention (SPL7013 as a topical microbicide)
 - Topical treatment (e.g. genital herpes)
- ❑ Systemic Antivirals
 - For example, Hepatitis B (HBV)
- ❑ Respiratory Disease (influenza, adenovirus, RSV)
 - Prevention and Treatment
- ❑ Oncology
 - Angiogenesis inhibitors
 - Small molecule anti-proliferatives
- ❑ Biodefense
 - Prevention and treatment of exotic viruses and potential bioterrorism agents
 - Antitoxins
- ❑ Tropical Diseases
- ❑ New Dendrimer Architectures

VivaGel™ Drug Product

- ❑ Water based Carbopol® gel for the prevention of HIV and other STDs in women and men.
- ❑ Worldwide exclusive for all indications.
- ❑ Commencing Phase 1 (IND application accepted by US FDA 31 July 2003).
- ❑ Batches prepared under GLP / cGMP at IDT Australia Ltd.
- ❑ Assays for SPL7013 and preservatives validated under GLP.
- ❑ Both a re-useable and pre-filled single use applicators have been identified.

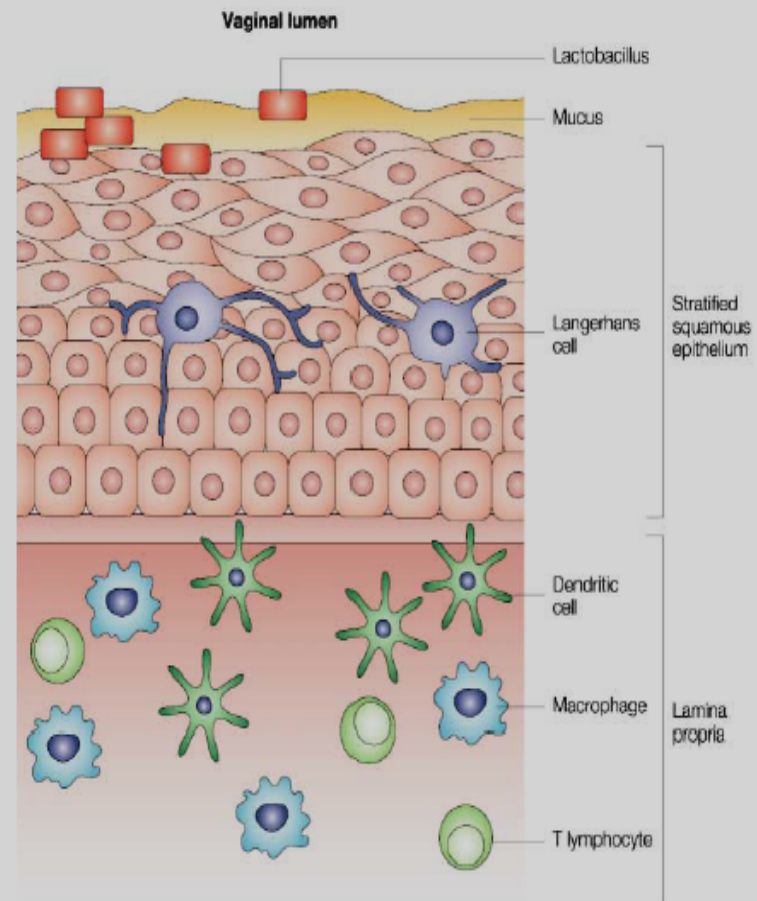
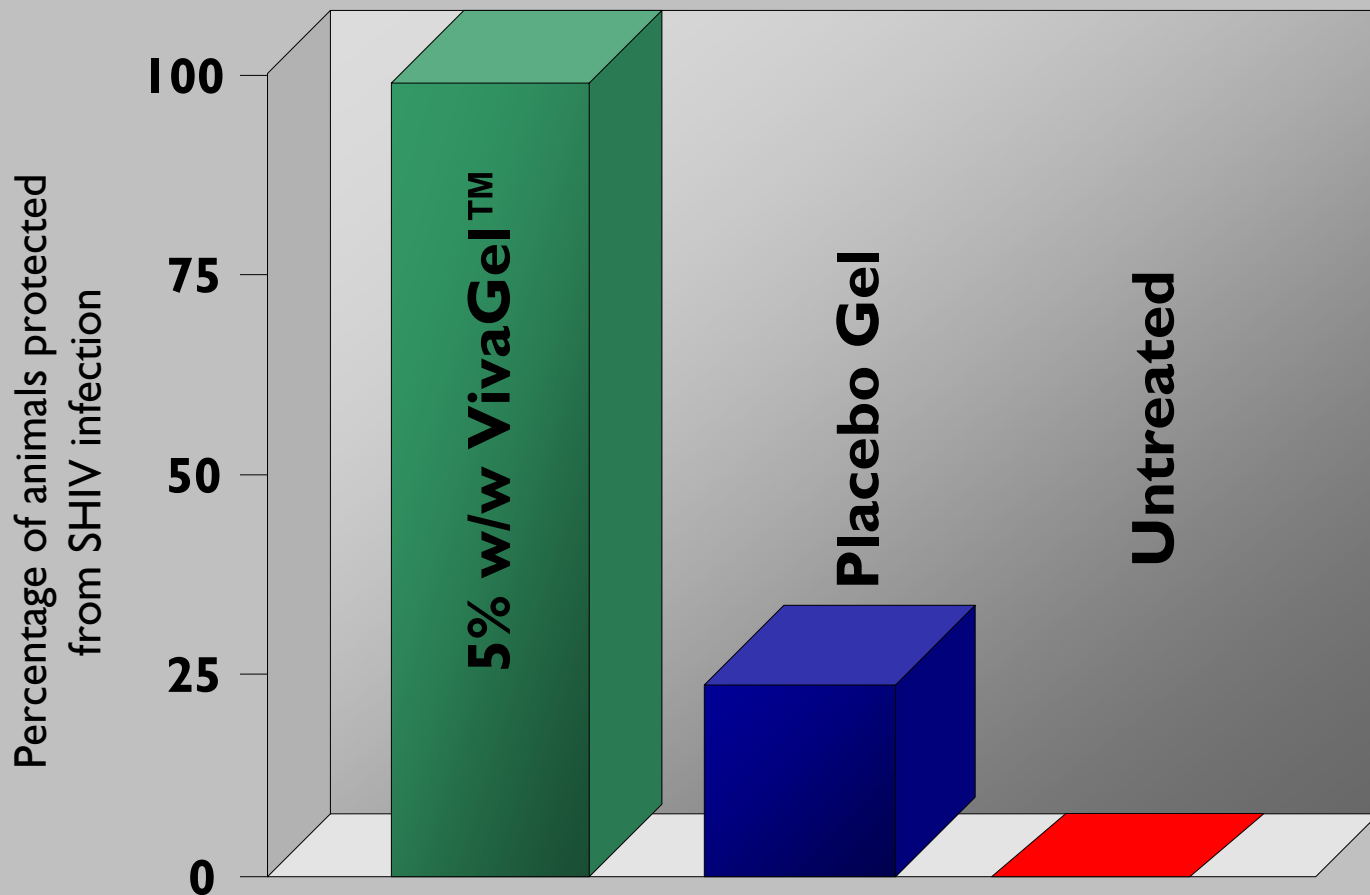


Figure 2 | Structure of the human vaginal epithelium. The multilayered epithelium and the underlying connective tissue contain several types of potential target cell for HIV.

VivaGel™ Prevents SHIV Infection in Macaques



From studies conducted by Dr Che-Chung Tsai, U of Washington at Seattle under NIAID, NIH contract

VivaGel™ Clinical Trial Strategy



- ❑ Initial Phase I Healthy Volunteer Studies
 - CMAX, Adelaide Australia

- ❑ Expanded Phase I and potential combined Phase II / III
 - Australia
 - SE Asia & Sub-Saharan Africa in partnership with government and non-government organisations

- ❑ Other STD endpoints, e.g. prevention of herpes and Chlamydia to be investigated under separate INDs

- ❑ Potential contraceptive efficacy of SPL7013 Gel under investigation

Respiratory



- ❑ Prevention & treatment of Influenza, RSV, Adenovirus & other viruses via inhalation.
- ❑ Strong polyvalent opportunities in respiratory indications.
- ❑ Lead identification.
- ❑ In vitro & in vivo biological screening in partnership with the Institute for Antiviral Research, University of Utah, Logan.
- ❑ Currently seeking an early stage joint venture/partnering relationship with experts in viral respiratory diseases and established big pharma relationships.

Oncology



- ❑ Two active approaches:
 - Dendrimers as angiogenesis inhibitors to prevent tumor growth and metastasis : heparin-sulphate glycosaminoglycans (HSGAGs) mimics
 - Small molecules to treat solid tumors lung, colon, breast, etc. (competitive with other clinical candidates being developed)
- ❑ Currently seeking an early stage joint venture/partnering relationship with experts in oncology and established big pharma relationships.

Exotic Diseases



- ❑ Promising results against a broad range of exotic disease targets:
 - ❑ Viruses include:
 - Ebola,
 - Dengue,
 - Punta Toro,
 - VEE,
 - West Nile,
 - Yellow fever,
 - Pichinde
 - ❑ Bacterial toxins
 - Derivations of cholera,
 - Campylobacter,
 - Clostridium
- ❑ Active collaboration with National Institute for Allergy and Infectious Diseases, NIH and US Army Medical Research Institute for Infectious Diseases
- ❑ Strong interest from US regulatory bodies

Starpharma PDL – US Investment



Dendritic Nanotechnologies, Inc. Brief Overview

“Until I arrived in Australia... I had no idea how extensively they had got into the business of using dendrimers for nanodrugs. I was awestruck by what they had done down here and the quality of the staff. They are so far ahead of anyone else working in the field. We were examining the potential of dendrimers for drug delivery applications and we were not aware of anyone actively developing dendrimers as drugs.”

Dr Donald Tomalia, Business Review Weekly, 2001

DNT - Objectives



- ❑ DNT proactively designs products to fit unmet needs in diverse markets
- ❑ DNT – key competitive positioning:
 - Lowering dendrimer cost of production
 - Application of low cost dendrons to drug delivery, quantum dot stabilisation and signal amplification
 - Selectively permeable membranes
 - DNT working beyond dendrimers – with ability to impart new properties to new systems with more sophistication and precision
- ❑ Interest has been expressed in the following areas
 - Thin films
 - Batteries
 - Cosmetics
 - Computers
 - Dynamic coatings
 - Adhesives
 - Electronic displays
 - Sensors

DNT – Key Achievements



2002

- Established facilities in Mt Pleasant, Michigan

2003

- Commenced dendrimer store sales via Sigma Aldrich and others
- Significant grant income from US Army and other sources
- Strengthening management
 - Charles Burke appointed CEO
 - Gifford Brown, ex CFO of Dow Corning now DNT's CFO
 - Richard Hazleton, ex CEO of Dow Corning appointed to Board
- Explore joint venture possibilities
- Strong financial position
- Explore two initial spin off opportunities

DNT – Key Assets and Relationships

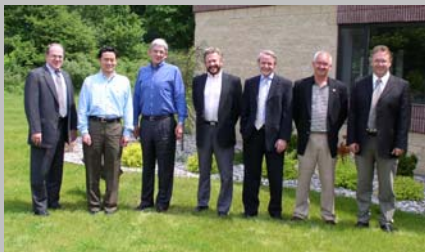


*2003 SPSJ
Award for
Outstanding
Achievement in
Polymer Science
and Technology*

**Founder
Dr Donald A Tomalia**



The DNT Team



The DNT Board

Significant portfolio of
patent rights



Seed Money
Infrastructure
Intellectual Property
Tech Services



Massachusetts Institute of Technology
Institute for Soldier Nanotechnologies

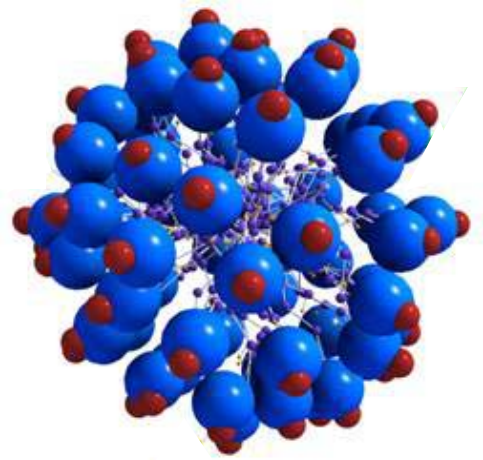


Central Michigan
University
Research
Corporation

Starpharma - Future Opportunities



- ❑ Starpharma has matured during the 3 years since listing:
 - Starpharma is no longer a virtual research firm, strong in-house capabilities;
 - Currently exploring numerous opportunities with various domestic and international partners;
 - Recent US FDA IND approval to move into Phase I trial positions
Starpharma well to negotiate early stage commercialisation deal with large global partner(s);
 - DNT (US) continues to generate strong interest from major multinationals regarding joint venture, licensing and collaborative agreements.



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