

Nanotechnology IP: Issues and Opportunities

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Nine Zeros Nanotechnology
Breakfast Roundtable

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Strong Nanotech Funding

- **National Funding**
 - 2003 Federal Nanotechnology Research and Development Act (NNI): \$3.7 billion
- **Growing regional and state initiatives**
 - 2004: states invested more than \$400 million in nanotechnology research, facilities and business incubation programs (Lux Research Inc)
- **Private**
 - Continued investor interest

“Nano” Patent Explosion

- **Issues of numerous patent filings**
 - Scope of freedom to operate
 - Many players in the same field
 - Positioning your own IP
- **Potential backlog at US Patent Office**
 - Timing of patent issuance

Freedom to Operate

- **Evolving patent landscape**
 - Most relevant patent may not have issued yet
 - Identification of relevant patents difficult if invention has application in many fields
 - Some fields are already crowded
 - Nanoparticles/powders

Who holds the relevant prior art?

- **Not typical vertical industry**
 - Most relevant prior art could be in a different industry
- **IP Holding Companies have large holdings**
 - No leverage because no product

Approach to FTO by investors

- Willing to accept some uncertainty?
 - Is there an understanding of the prior art landscape
 - “Sure thing”
- Is there a product?
 - Material supply vs. application

Positioning your IP

- **Land Grab**
 - Territories are not well-defined and need to define your IP as broadly as possible
- **Capture interdisciplinary scope**
 - Claim scope has applicability over number of industries or specific to one

Help is on the way at the PTO

- **New classification for nanotechnology patent applications (Class 977)**
- **database of nanotechnology related prior art**
- **partnership to provide training for patent examiners in the current topics in nanotechnology**

Resulting in...

- **More thorough review of the relevant art**
- **Review across all technology discipline**
- **Predictability**
- **More defensible patents**
- **Reduced pendency in the PTO?**