

# An Affordable and Critical Patent Strategy for Start-Ups

May 17, 2017

**MIT** ENTERPRISE FORUM  
CAMBRIDGE

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REYNOLDS  
Intellectual Property Law

**Presenters:** Deirdre Sanders, Principal  
Mark Solomon, Principal

**Featured Entrepreneur:** Zhouzhou ("Joe") Peng

**Presenter:** Ben Sparrow, Associate

## By the Numbers

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Offices



**Boston**

Seaport Innovation District



**Concord**

Route 128 Technology Corridor

**1980**

Year Founded

**22**

Technology Specialties

Bioinformatics  
Biotechnology & Life Sciences  
Biologics & Immunotherapeutics  
Chemical Engineering  
Pharmaceuticals  
Chemistry  
Material Sciences  
Clean Technology  
Medical Devices  
Medical Imaging  
Mechanical Engineering  
Electrical Engineering  
Semiconductors  
Optics  
Robotics  
Mobile  
Internet of Things  
Network Infrastructure  
Telecommunications  
Computer Hardware  
Computer Software  
Business Methods

**38**


Attorneys,  
Patents Agents,  
Technology Specialists

**20**

Firm accolades since  
2010, including:




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**Deirdre Sanders**  
Principal & Shareholder

- Science background
- 22 years of law firm experience
- State Legislative experience
- University teaching experience
- Master's Degree
- Science expertise in monoclonal antibodies, immunology, genetics, therapeutic methods, diagnostic methods, biotherapeutics, vaccines, etc.
- Litigation experience: Federal District Court Trials, Federal Circuit Appeals



**Mark Solomon**  
Principal & Shareholder

- Engineering background
- 18 years of law firm experience
- 10 years of engineering experience
- University teaching experience
- Master's Degree
- Technical expertise in control systems, signal processing, optics, optoelectronics, mechanical structures and mechanisms, electronics hardware, software, etc.



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## Innovation Start-ups

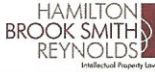
Life Sciences Co

Engineering Co

Product Development

Business Growth

Intellectual Property?



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## Rights Covered by Forms of Intellectual Property



**Copyrights:** Prevent others from producing, selling, copying, etc. original expression of ideas in a tangible medium

**Trademarks:** Prevent others from using a name, logo, sound, etc. that serves as a source indicator of goods and services

**Trade Secrets:** Prevent others from taking, selling, etc. any confidential business information not generally known or ascertainable by others that can be used for economic advantage over competitors

**Patents:** Prevent others from manufacturing, using, selling, distributing, importing, etc. an invention for a certain number of years, without permission

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## What Are Common Types of Patents?

### Utility Patent: Protects Useful Features

- **Provisional –**
  - Placeholder for the subject matter it discloses
  - Not available to the public unless it serves as a priority document for a non-provisional
  - Not examined but is part of the record
  - Typical costs run from \$ to \$\$\$
- **Non-provisional –**
  - Claims can be made for the subject matter it discloses
  - Typically publishes at 18 months
  - Is examined
  - Typical costs run from \$\$ to \$\$\$\$



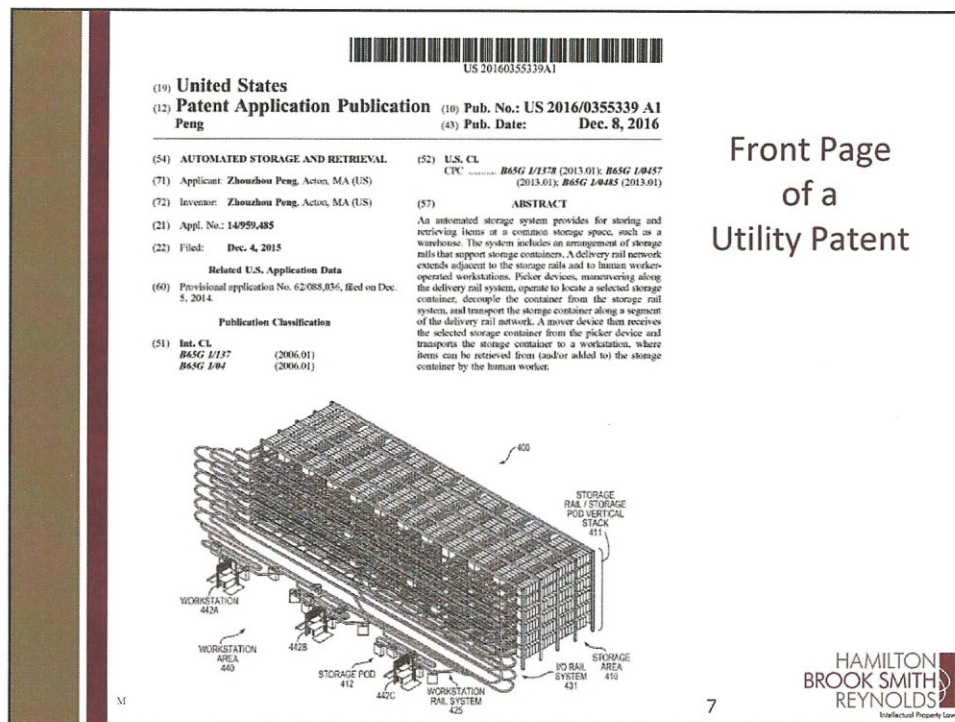
### Design Patent: Protects ornamental features

*Today we will focus on Utility Patents*

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## Some Features of a Utility Patent

- Protection for the technical result of an invention
- Invention claimed must be **useful, novel** and **nonobvious**
- Applications typically take **2-4** years to issue through the United States Patent and Trademark Office (USPTO)
- Exclusive **20 year** monopoly (typically) of the claimed invention, provided compliance with pendency procedures

## Design and Utility Patents

Apple



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## Innovation Start-ups

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Product Development

Business Growth

Patent Procurement

Let's consider affordable and savvy strategies...

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## Considerations for an Affordable and Savvy Patent Strategy

1. Who to get involved
2. What to patent
3. What NOT to patent
4. Budget savvy preparations
5. Types of patents for your budget
6. When to patent
7. Timing and budgets
8. Strategies for delaying or speeding up
9. Long term value of your patent
10. Gaining investor interest

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## Considerations for an Affordable and Savvy Patent Strategy

### #1. Who to get involved

- Inventors
  - Determine who the inventors are
  - Obtain rights from inventors by assignment
- Co-Owners
  - Iron out partnerships and inter-institutional agreements
- Patent Attorneys
  - Engage early with a patent attorney to file before public disclosure to preserve maximum rights



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## Considerations for an Affordable and Savvy Patent Strategy

### #1. Who to get involved (Continued)

#### Agreements to Consider

- ☐ Employment agreements (IP clauses)
- ☐ Non-disclosure and confidentiality agreements
- ☐ Independent consultant agreements (IP clauses)
- ☐ IP Assignment agreements
- ☐ License agreements
- ☐ Material Transfer Agreements

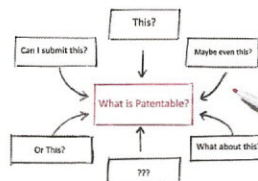
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## Considerations for an Affordable and Savvy Patent Strategy

### #2. What to patent?

- Is the invention patent-eligible, novel and non-obvious?
- Is the invention valuable in the market?
- Do you have clear ownership of the invention?
- Will the cost of patenting be a worthwhile investment?



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## Considerations for an Affordable and Savvy Patent Strategy

### #3. What NOT to patent

- Inventions preferably kept confidential
  - Consider Trade Secrets
- Inventions not sufficiently commercially valuable
  - Consider publication (defensive)
- Inventions that are not patent eligible subject matter or  
Inventions that are not sufficiently novel and non-obvious
  - Consider covering products with trademarks

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## Examples of Business Justifications for Patents

### YES Patents

- Attraction of investments
- Retention of employees
- Recognition of employee contributions
- Exclusion of competitors
- Penetration of market
- Recognition of value in the marketplace
- Exponential asset growth

### NO Patents

- Reliance on speed to market
- Reliance on employee loyalty
- Reliance on sales revenue as funding vehicle
- Reliance on investment without underlying patent collateral

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## Considerations for an Affordable and Savvy Patent Strategy

### #4. Budget savvy preparations

Pre-Filing Activities -- Save attorney time prior to meeting

- Consider Literature/Patent Search
- Develop design and collect data
- Draft description
- Be prepared to discuss variations and prior art with counsel
- Know when public disclosures have been made or will be made



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## Considerations for an Affordable and Savvy Patent Strategy

### #5. Types of patents for your immediate budget

Design Patent

Provisional Application

- Achieves a priority or "start" date
- Converts to a regular patent in one year
- Is not examined
- Is kept secret until conversion



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## Considerations for an Affordable and Savvy Patent Strategy

### #6. When to patent?

- Concept of invention is complete
- Data is available to meet patent requirements
  - Written description
  - Enablement
- Funding is available to pay for the patenting process
- Prior to public disclosure

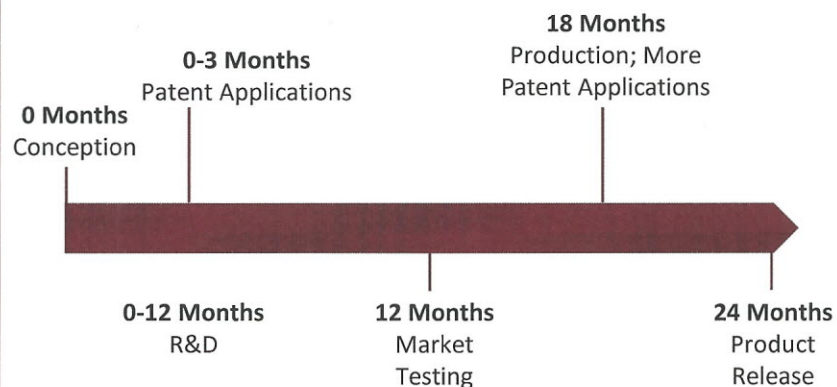


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## Considerations for an Affordable and Savvy Patent Strategy - Example Patent Timing

### #6. When to patent?



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## Example Utility Patent Application Process

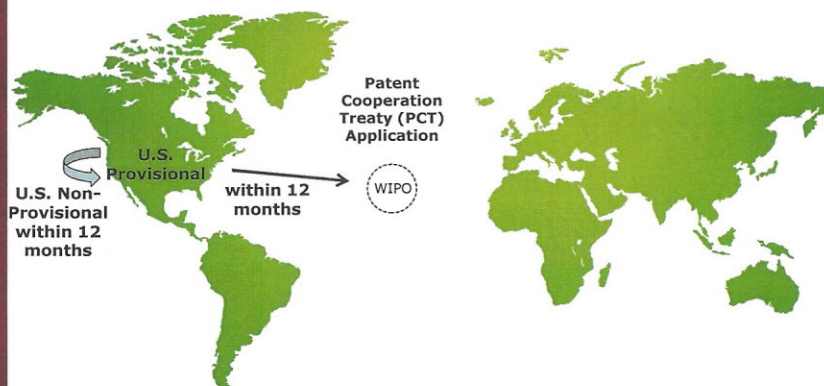


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## Example Utility Patent Application Process

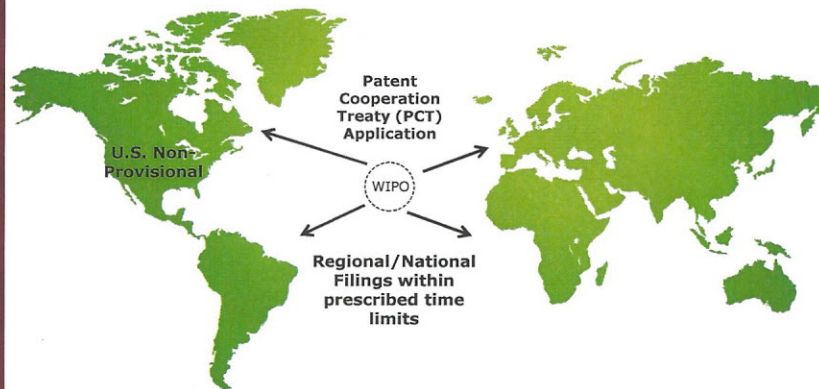


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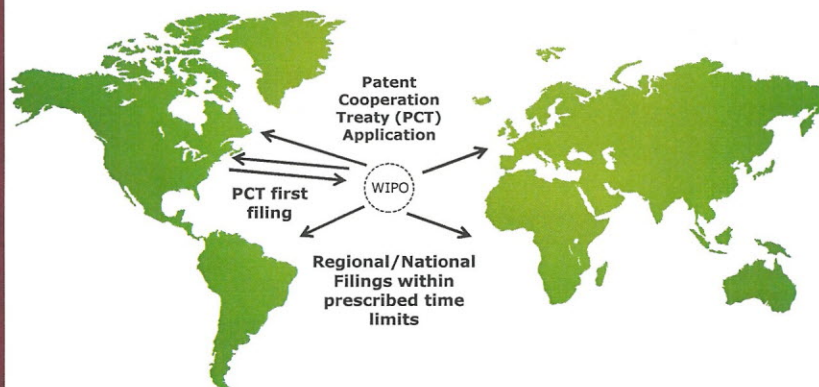
## Example Utility Patent Application Process



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## Another Utility Patent Application Process



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## Considerations for an Affordable and Savvy Patent Strategy

### #7. Timing and Budgets

U.S.

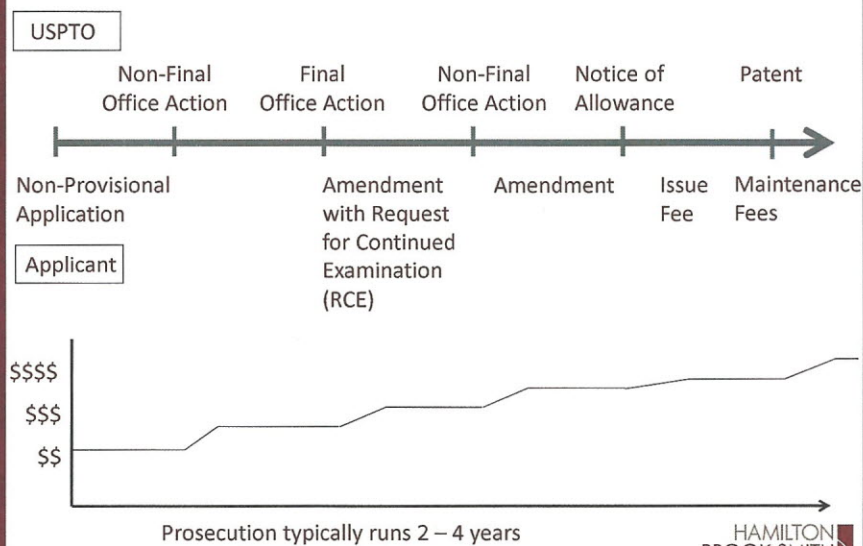
Foreign



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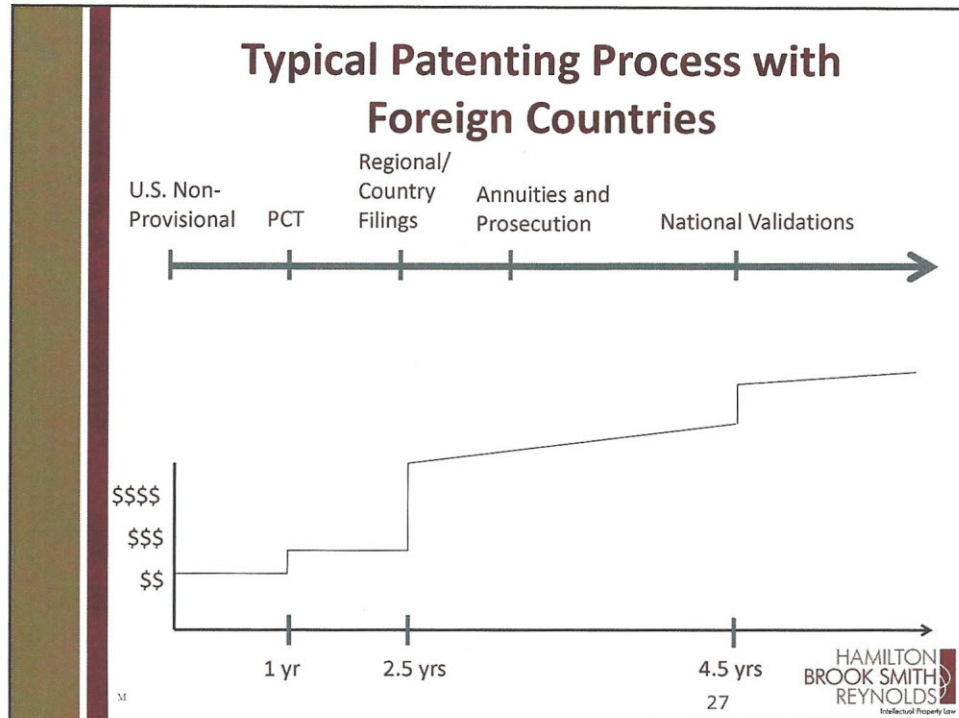
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## Typical Patenting Process in the U.S.



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## Considerations for an Affordable and Savvy Patent Strategy

### #8. Strategies for Delaying or Speeding Up

#### Strategic Procedural Delays

- File in grace periods if willing to accept risk
- Delay filings up to public disclosure if willing to accept risk
- File U.S. Provisional applications
  - allow time to further develop product
  - allow time to conduct further research and gather data
  - allow time to acquire funding for patent examination
- Use procedural prosecution strategies for delaying substantive legal activities
- File PCT application and delay decision points for large expense national filings and examinations

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## Considerations for an Affordable and Savvy Patent Strategy

### #8. Strategies for Delaying or Speeding Up (Continued)

#### Strategic Expediting of Patent Process

Speed Up Filings to:

- Get the benefit of the granted patent sooner, to raise capital

Consider:

- Prioritized Examination
- Patent Prosecution Highway
- Examiner Interviews and AFCP2.0 Requests

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## Considerations for an Affordable and Savvy Patent Strategy

### #9. Long term value of your patent

- Consider dropping patents no longer strategically useful
  - Non-payment of maintenance fee
  - Attract potential licensing revenue
- Enforce patent
  - Potential damages award
  - Potential injunction
- Cross-license or sell patent



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## Considerations for an Affordable and Savvy Patent Strategy



### #10. Gaining investor interest

- Investors look for a strong patent portfolio
  - Issued and pending applications are likely to result in valid patents
  - Key technologies covered by patents/patent applications
- Investors want to minimize risk
  - Freedom-to-operate
  - Reduce likelihood of infringement

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## Considerations for an Affordable and Savvy Patent Strategy



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## Discussion with our Featured Entrepreneur

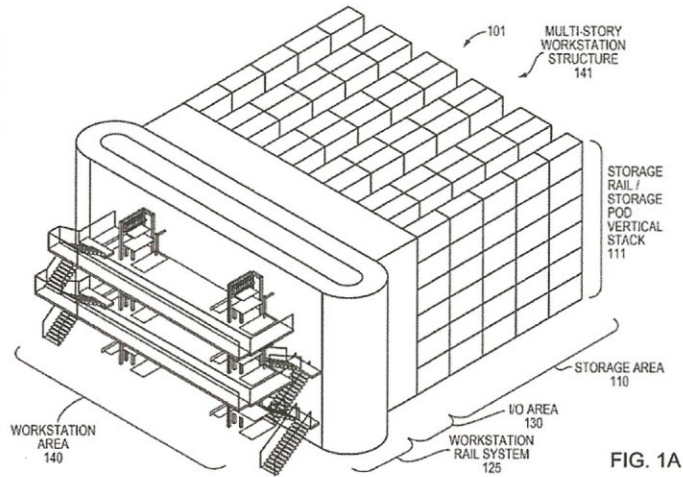


FIG. 1A

Patent Application Publication Dec. 8, 2016 Sheet 1 of 24 US 2016/0355339 A1

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## Thank you! For more information ...



**Deirdre E. Sanders**  
Deirdre.Sanders@hbsr.com  
(978) 341-0036



**Mark B. Solomon**  
Mark.Solomon@hbsr.com  
(978) 341-0036



**Ben J. Sparrow**  
Ben.Sparrow@hbsr.com  
(978) 341-0036



530 Virginia Road  
Concord, MA



155 Seaport Boulevard  
Boston, MA

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BROOK SMITH  
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