



Wilson Sonsini Goodrich & Rosati
PROFESSIONAL CORPORATION

The IP Based Start of A Life Science Company

Vern Norviel

Stanford Presentation

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Why Do We Do What We Do?

Because Life Science Companies Can Change The World!

In health care, law gives you a chance to have a real impact on getting new health care technologies *from the lab bench to the patient to improve lives*

Venture Capital Reaction Process



+



Patents



Some Things We Do As Attorneys To Start a Company

- Company Formation
- Licensing
 - Obtaining rights to practice patented inventions, usually for a royalty
- Patent Prosecution
 - Drafting new patent applications and guiding patents through the Patent Office to get a patent
- Due Diligence
 - Confirming a company's rights to IP
 - Determining whether another party has IP that would block the company from the market





**Some of the companies we are
helping**



- Genetically engineering microorganisms to make drugs, such as Artemisinin, and biofuels
- Technology from University of California
- Originally financed by funding from the Gates Foundation (\$35M) and now from VCs (\$20M – Khosla Ventures)



BILL & MELINDA
GATES foundation
*Bringing innovations in health and
learning to the global community*

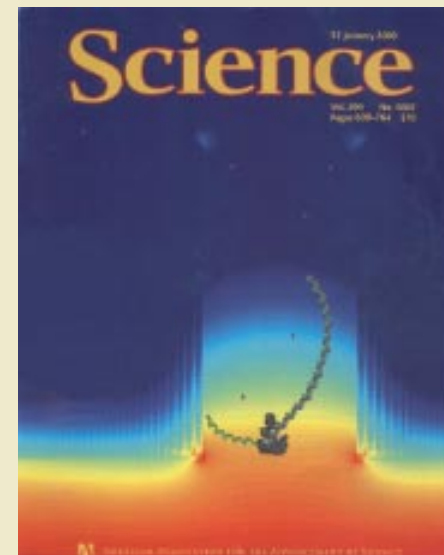
Nodality

- Mapping of protein phosphorylation responses in cell signaling pathways
- Reveals personalized information about, e.g. cancer cells for treatment
- Technology from Stanford





- Single Molecule DNA sequencing
- Technology developed at Cornell
- Patents have issued this recently
- Raised over \$200M in financing
- The hundred dollar genome???





- Fast acting proton pump inhibitors
 - For treatment of upper GI disorders
- Technology licensed from the University of Missouri
- Recently went public



Taiji Biomedical, Inc.



- Neurodegenerative Diseases- licensed from UCSF
– Amyotrophic Lateral Sclerosis
- Technology licensed from the Parkinson's Institute- Reduction of dyskinesia

(12) **United States Patent**
McGrath

(10) **Patent No.:** **US 7,105,183 B2**
(45) **Date of Patent:** **Sep. 12, 2006**

(54) **CHLORITE IN THE TREATMENT OF
NEURODEGENERATIVE DISEASE**

(75) Inventor: **Michael S. McGrath**, Burlingame, CA
(US)

(73) Assignee: **The Regents of the University of
California**, Oakland, CA (US)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

(21) Appl. No.: **11/042,816**

(22) Filed: **Jan. 24, 2005**

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So, A Typical Scenario: A Day In Our Life

- A clever scientist at Stanford comes up with a great new drug, diagnostic, or research tool
- A few people see the vision, and come to WSGR to start a company
- What do we do:
 - License in the IP from Stanford
 - Help pitch them to our VC friends
 - Identify and license in technology from other universities that may be needed
 - Help in company formation
 - Defend in the due diligence of the VCs
 - Push their patents through the Patent office
 - Engage in reducing/eliminating IP that may be detrimental
 - Get the company GREAT patents throughout the world
 - Help partner the technology to move it rapidly to the market



Strategic Alliances A Conceptual Framework

Michael J. O'Donnell

Wilson Sonsini Goodrich & Rosati

Wilson Sonsini Goodrich & Rosati

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Strategic Alliances

A Conceptual Framework

- Who does what?
- Who pays what?
- Who gets what?

Who does what?

- **General description of what each party is to do**
 - **Scope of project often expressed in FTE's**
 - **Who controls research/development?**
 - *Role of Joint Research Committee*
 - *Often equal number of representatives*
 - *Issue of deadlocks*
 - **Who controls manufacturing/commercialization?**
 - **Who controls patent prosecution/infringement?**
-

Who pays what?

- **Typically partner pays:**
 - *Upfront payment/equity investment*
 - *Funded R&D*
 - *Milestones*
 - *Royalties*

Who pays what? (Cont.)

■ Upfront payments

- *Nice to get*
- *Tough to get back more than you put in*

■ Equity

- *Can be in addition to upfront payment*
- *Pro – easier to get than upfront payment, promotes “partnership” concept*
- *Con – dilution to stockholders, can be seen as “captive”*
- *Premium – Easier for private companies to get*
- *IPO participation*

Funded R&D

- **Typically Partner funds research and development**
 - *Partner committed resources versus funding*
 - *Reimbursement at FTE rate versus actual cost basis*
- **Partner's ability to terminate**
 - *Limited to "scientific failure" ?*
 - *Notice/wind down provisions*

Milestones

- **Typically based on regulatory progress**
 - *Tend to be back end loaded*
- **Interesting issues to consider**
 - *Domestic versus international*
 - *Back-up compound for same indication*
 - *Same compound for different indication*

Royalties

- **“Where the rubber meets the road”**

- *Key term – important to valuation*
- *Ability to “buy in” to increase royalties*

- **Issues**

- *Only if covered by “valid” patent claim*
- *Offset for other royalties*

What do you want to maximize?

- Up front payment?
- Funded R&D?
- Royalties?

Who gets what?

- **Typically exclusive right to market and sell in Field**
 - *“Field” definition is key*
 - *Geographic restrictions?*
 - *Limited to specific compounds?*
 - *Who gets leftovers?*
 - *Rights to use developed technology inside and outside Field*

Other Issues

- **Due diligence obligations on the partner**
- **Rights of first offer/negotiation**
- **Rights to co-promote**
- **How about a Quid?**

Some Real World Examples

- **Early stage deal – Cytokinetics/GSK**
- **Later stage deal – Pain Therapeutics/King**

Cytokinetics/GSK

■ Earlier Stage Deal

- *Broad platform technology applicable across multiple cancers and potentially other diseases*
- *\$14 million cash upfront and \$14 million equity investment*
- *5 year significant funded research*
- *GSK pays milestones (\$30-50 million pre-commercialization for each target) and royalties*
- *GSK funds and controls development and commercialization*

Cytokinetics/GSK, contd.

■ Interesting Features

- *Option for Cytokinetics to select certain targets for independent research and development and subsequent commercialization (subject to a royalty to GSK), subject to GSK's right to buy back for premium plus increased royalty*
- *Option for Cytokinetics to co-fund later stage development costs in exchange for higher royalty from GSK*
- *Further option for Cytokinetics to co-promote products and receive reimbursement for certain sales force costs*
- *Enables Cytokinetics to potentially establish specialty sales force*

Pain Therapeutics/King Pharmaceuticals

■ Remoxy – Later stage compound

- *Compelling Phase II data*
- *Multiple potential partners*
- *Resulted in attractive deal terms*
 - Big upfront – \$150 million
 - Significant milestones – up to \$150 million
 - Royalties 15-20%
 - King to fund, but PTI to control development through Phase II, joint control through Phase III

Complications

- **PTI license to Durect Technology**

- *King to meet all PTI obligations to Durect (due diligence, etc.)*

- **Field Definition Critical**

- *Limited to Durect technology applied to certain opioids*
- *Possible competition from other Pain non-Durect products*
- *Considered limited Right of First Offer*

Commercialization Due Diligence

- Agreed on detailed initial budget for King
- Couldn't agree on detailed full budget at time of signing, so agreed on minimum and maximum level of spending over several years with JDC to determine specifics

Take Away Messages

- Deals are complex, need to think through issues
- Takes a long time to negotiate
- You need leverage and patience to get what you want (and having a good lawyer doesn't hurt!)

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