

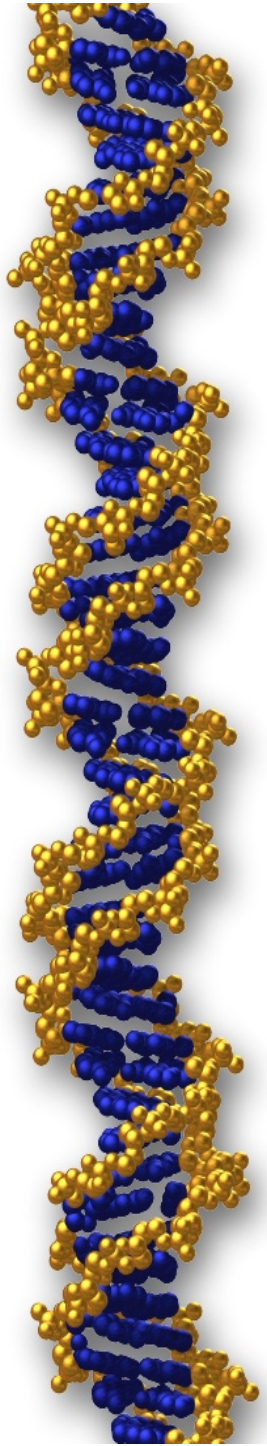
IPR Protection of Agricultural Biotechnology

Karen M. Hauda

Patent Attorney

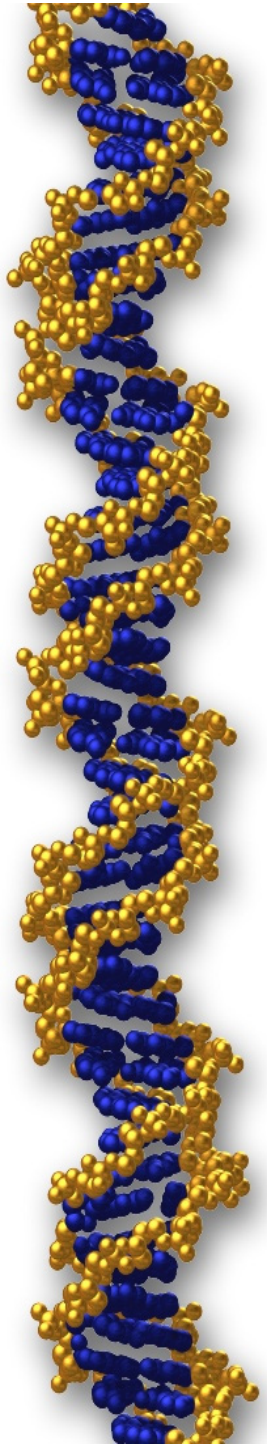
Office of International Relations

USPTO



Most Common IP Protection in U.S.

- Utility Patent
 - 35 U.S.C. §§ 101 et. seq. (102, 103, 112)
- Plant Patent Act
 - 35 U.S.C. §§ 161-164
- Plant Variety Protection Act
 - 7 U.S.C. §§ 2321 et seq.
- Trademark Lanham Act
- Trade Secrets/ Unfair Competition Laws
 - Typically State law in U.S.



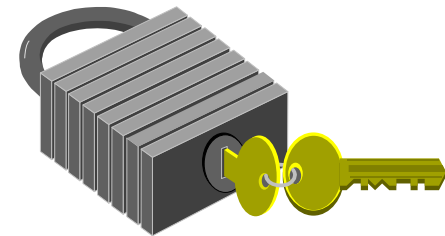
Basis for Protection

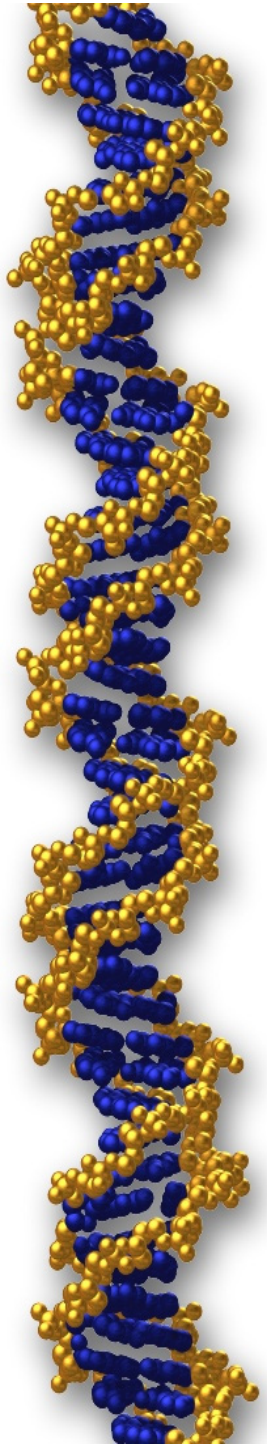
Constitutional basis in Article I, Section 8:

- *“Congress shall have the power ... to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.”*

First patent law was enacted in 1790

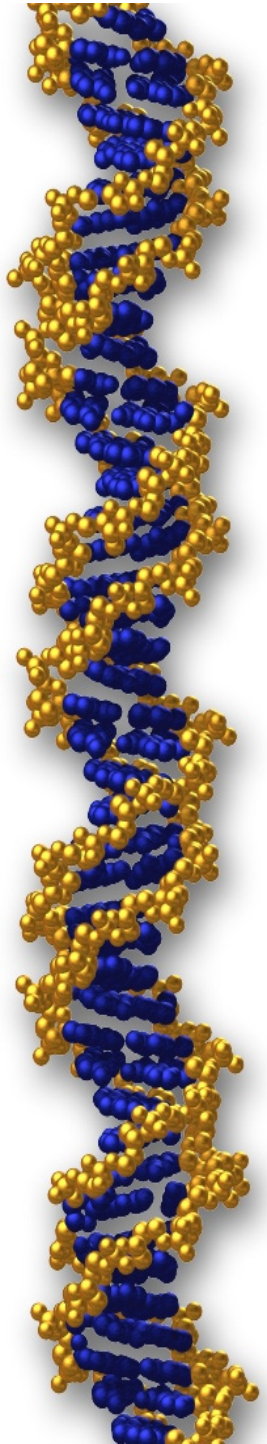
The present law is codified in Title 35 of the United States Code





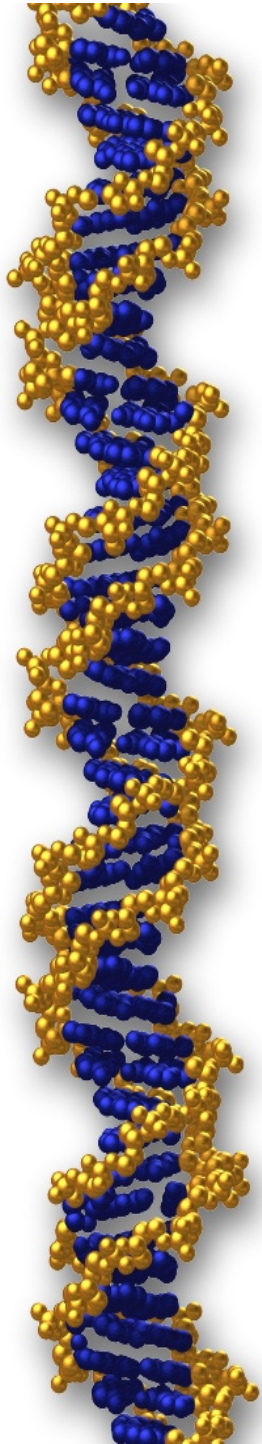
Why Protect Intellectual Property?

- The Founders of the United States – people like Benjamin Franklin, Thomas Jefferson, and George Washington – felt that it was such a necessary component of economic development for a young agrarian economy, that they placed the legal protection for inventions and artistic and literary works in our Constitution.



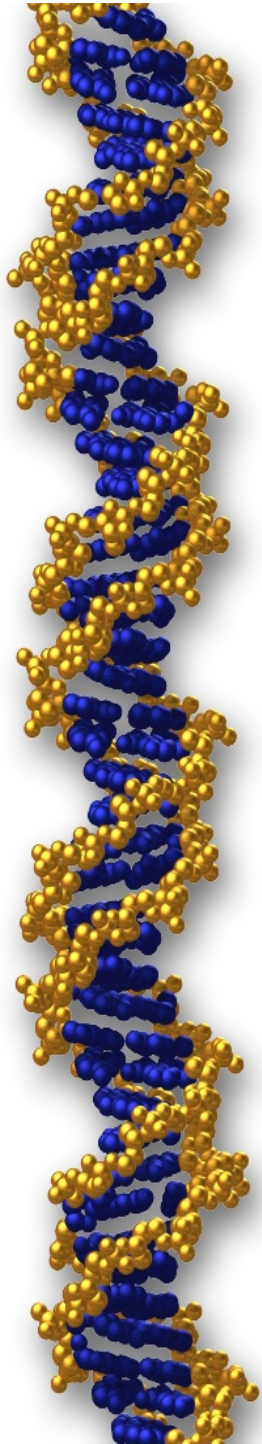
Why Protect Intellectual Property?

- While the colonies had their own laws, the Founders believed only national intellectual property protections would help to stimulate industrialization and economic growth, promote foreign trade, make the new United States competitive with Europe, and promote interstate commerce while protecting authors and inventors nationwide.



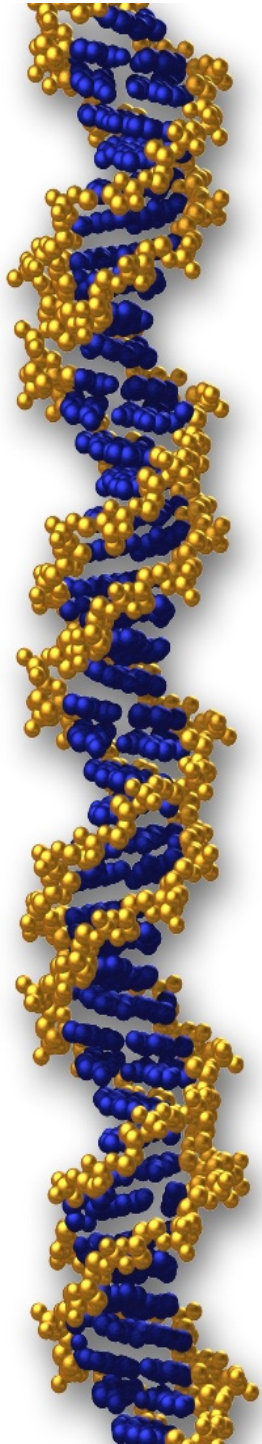
Plant Variety Protection History

- 1930 – 1960 U.S. had patent protection for asexually reproduced plants and standard inventions
- 1961 – Several European countries formed UPOV and introduced PVP protection for asexually reproduced plants and sexually reproduced plants; Resulted in less IP protection in U.S. for inventions related to sexually reproduced plants
- 1970 – U.S. Enacted the Plant Variety Protection Act providing *sui generis* IP protection for sexually reproduced plants and tuber-propogated plants



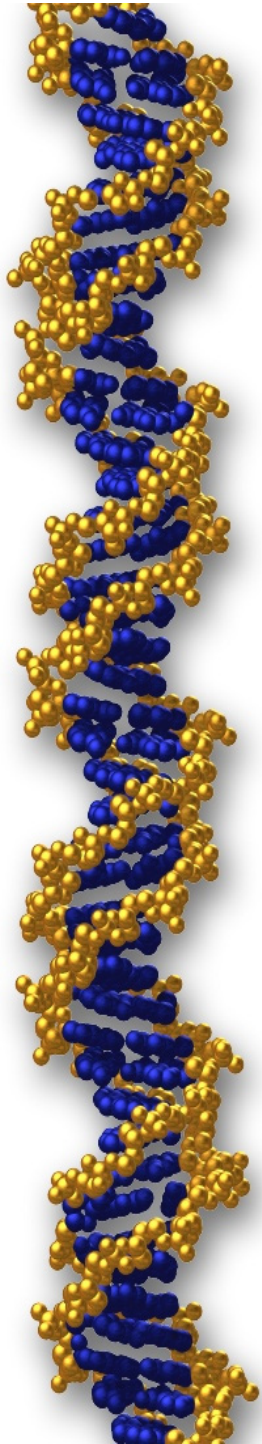
Plant Variety Protection History

- Diamond v. Chakrabarty, 447 U.S. 303 (1980)
 - Held living things were indeed patentable
- Ex Parte Hibberd, 227 USPQ 443 (PTO Bd. Pat. App. & Int. 1985)
 - Ruled that seeds, plant tissue cultures, and the plant itself are patentable subject matter under the utility patent statute
- J.E.M. Ag Supply, Inc. v. Pioneer Hi-Bred International, Inc., 534 U.S. 124 (2001)
 - Held newly developed plant varieties fall within the scope of §101, and neither the PPA or PVPA limits this coverage



Diamond v. Chakrabarty

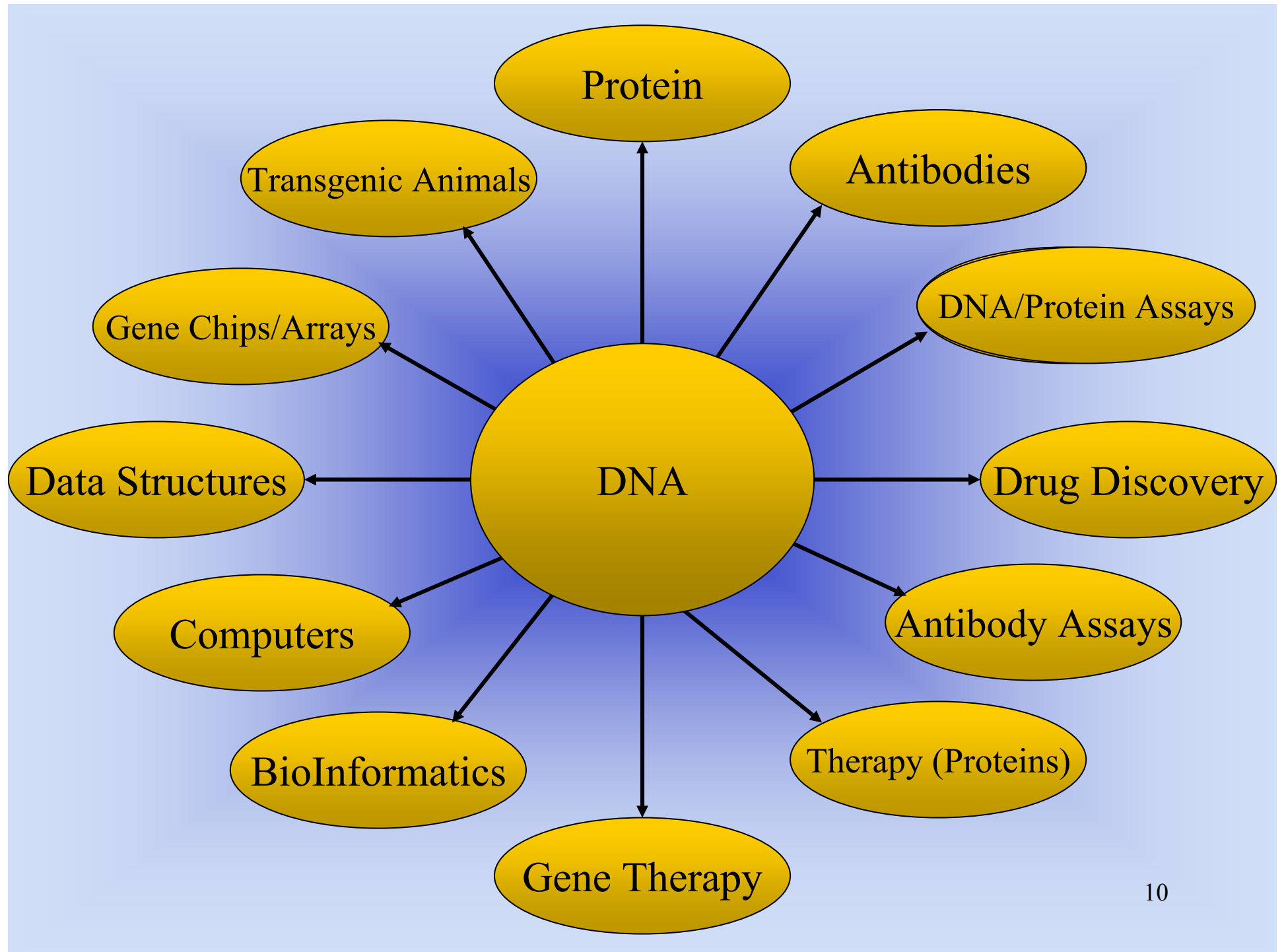
- The fact that Congress contemplated that patent laws would be given wide scope is not to suggest that Section 101 has no limits or that it embraces every discovery; **since laws of nature, physical phenomena, and abstract ideas have been held not patentable**, new mineral discovered in earth or new plant found in wild is not patentable subject matter; likewise, Einstein could not patent his celebrated law that $E=mc^2$; nor could Newton have patented law of gravity; such discoveries, which are manifestations of nature are free to all men and reserved exclusively to none.

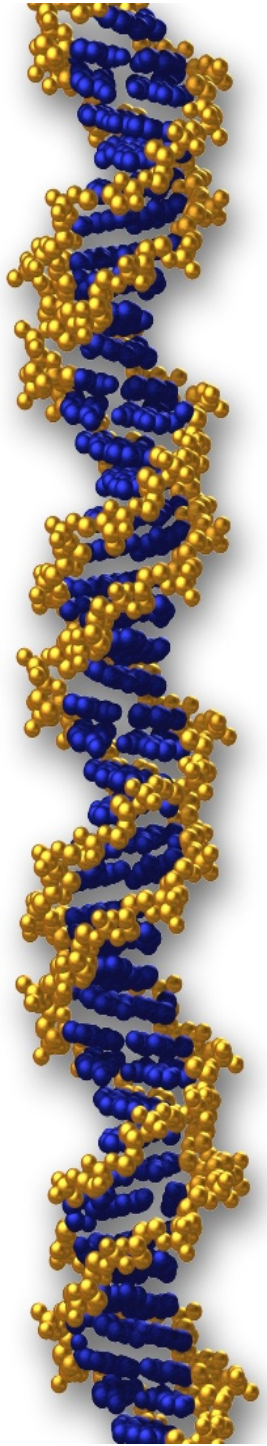


Diamond v. Chakrabarty

Utility Determination

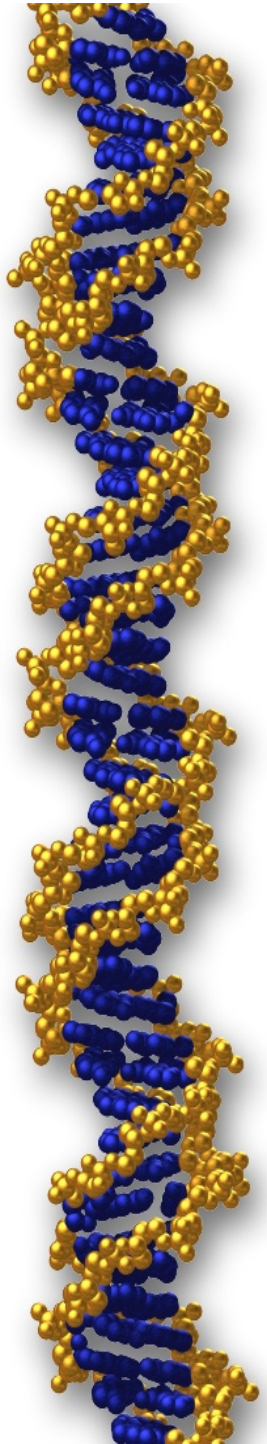
- “...respondent’s micro-organism plainly qualifies as patentable subject matter. His claim is not to a hitherto unknown natural phenomenon, but to a nonnaturally occurring manufacture or composition of matter -- a product of human ingenuity ‘having a distinctive name, character [and] use.’” 447 U.S. 303, 309-310
- “His discovery is not nature’s handiwork, but his own; accordingly it is patentable subject matter under §101.” 447 U.S. 303, 317





Requirements for Patenting

- To be patentable, the invention must be:
 - New
 - Useful
 - Non-obvious
 - Fully described/disclosed
 - Enabled

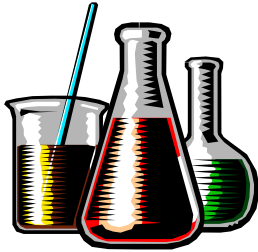


Brenner v. Manson Supreme Court Decision

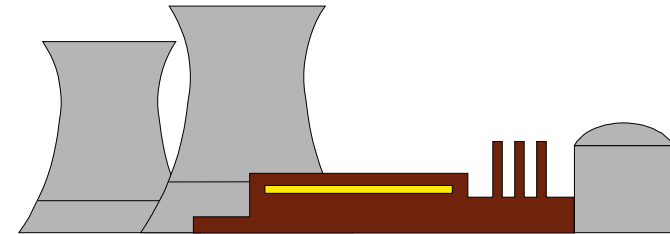
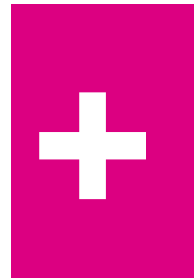
“A patent is not a hunting license. It is not a reward for the search, but compensation for its successful conclusion.”

* Brenner v. Manson, 383 U.S. 519 (1966)

IPR Contribution to the United States Economy

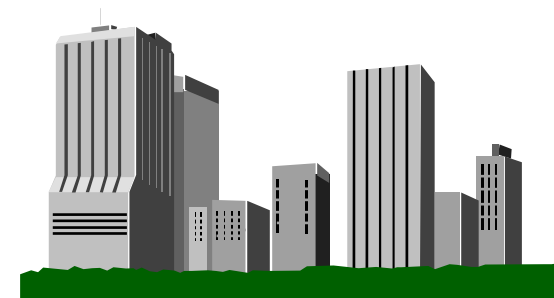
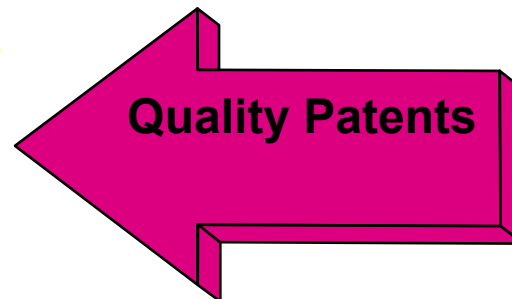
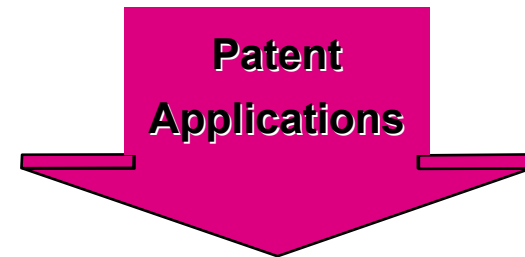


Research & Development

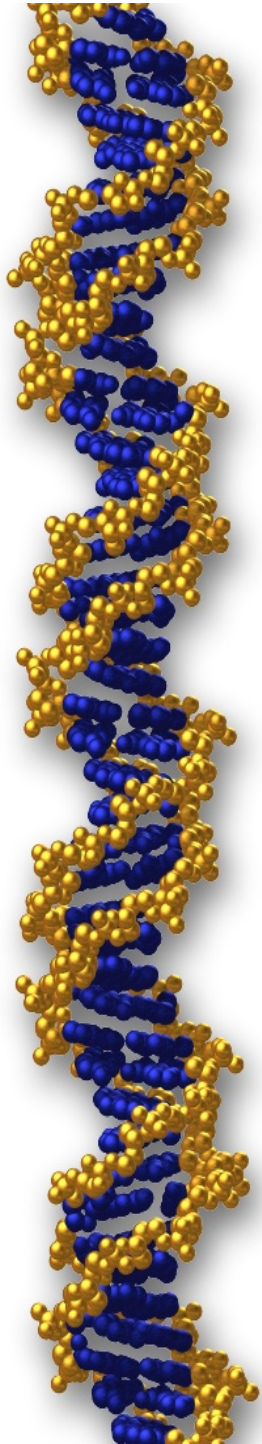


Industry & Business

**Stimulating
Innovation and
Economic Growth
by Protecting
Investment**

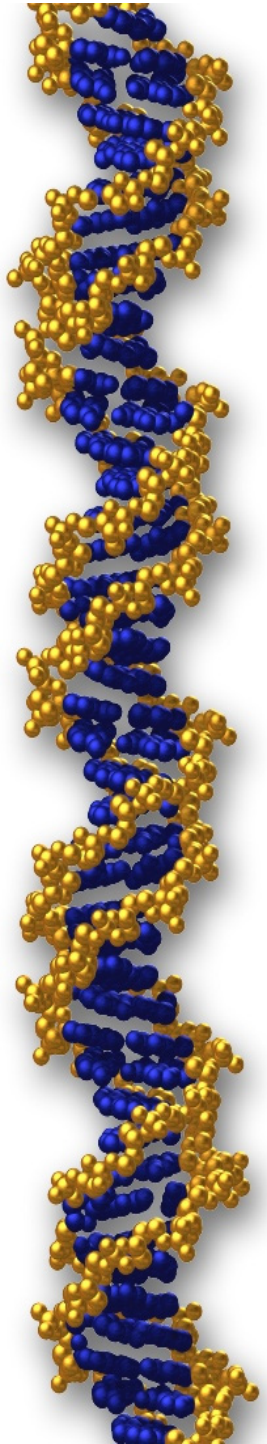


USPTO



Promoting Innovation: Bayh-Dole

- Government Supported R&D –Policy Results:
 - Dramatically increased commercialization of federally funded inventions
 - Established a uniform government patent policy and was the first law which gave contractors rights to their inventions
 - Government retains a license where it does not have to pay royalties when buying from a patent owner’s licensee
 - Dramatically increased number of reported inventions, patent applications filed, patents obtained, licenses granted and royalties received
 - Encourages collaborative research
 - Reporting of use and patenting required; government interest is identified in patent application
 - Provides for small business preferences



Contact Information

- Office of International Relations
(571) 3272-9300
- Karen.Hauda@uspto.gov
- Visit our website: www.uspto.gov