



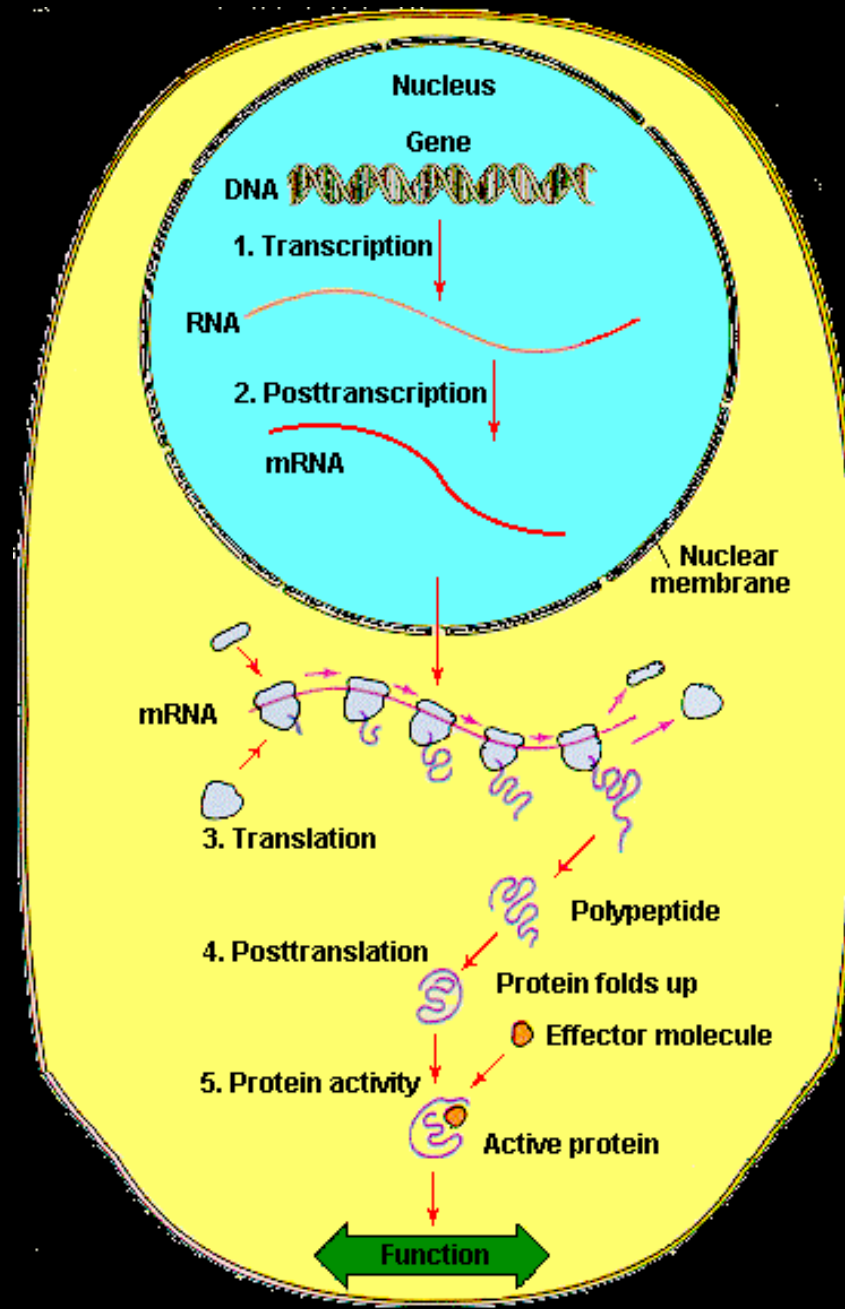
# **The Discovery of Invention**

**Johanna Gibson**

Queen Mary Intellectual Property Research Institute  
Queen Mary University of London

**DIME Conference, London, 14-15 September 2006**  
**Intellectual Property Rights for Business and Society**

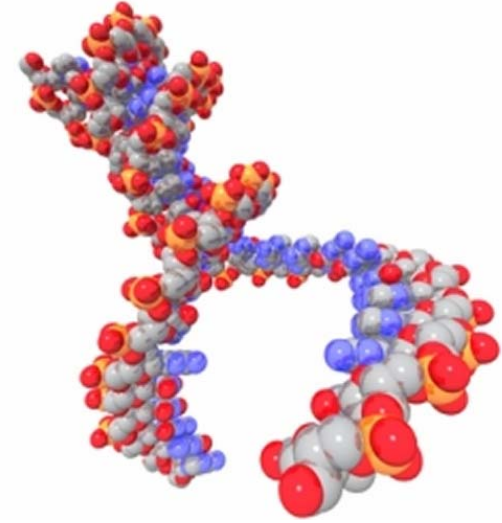
# The Central Dogma of Genetics





YOU ARE  
HERE

SCHALLORSTRIM



# European Patent Convention

## *Article 52*

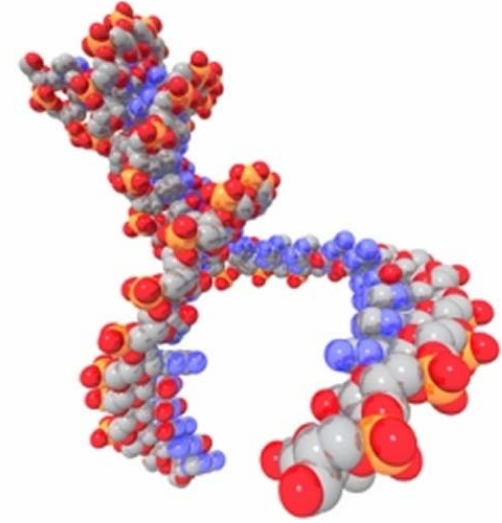
### Patentable inventions

(1) European patents shall be granted for any inventions which are susceptible of industrial application, which are new and which involve an inventive step.

## *Article 83*

### Disclosure of the invention

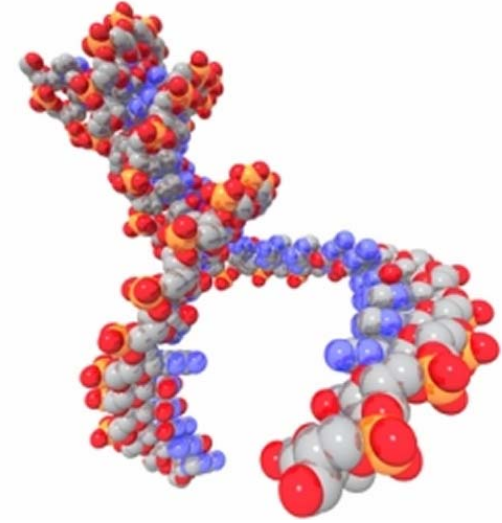
The European patent application must disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.



# European Biotechnology Directive

## *Recital 23*

Whereas a mere DNA sequence without indication of a function does not contain any technical information and is therefore not a patentable invention

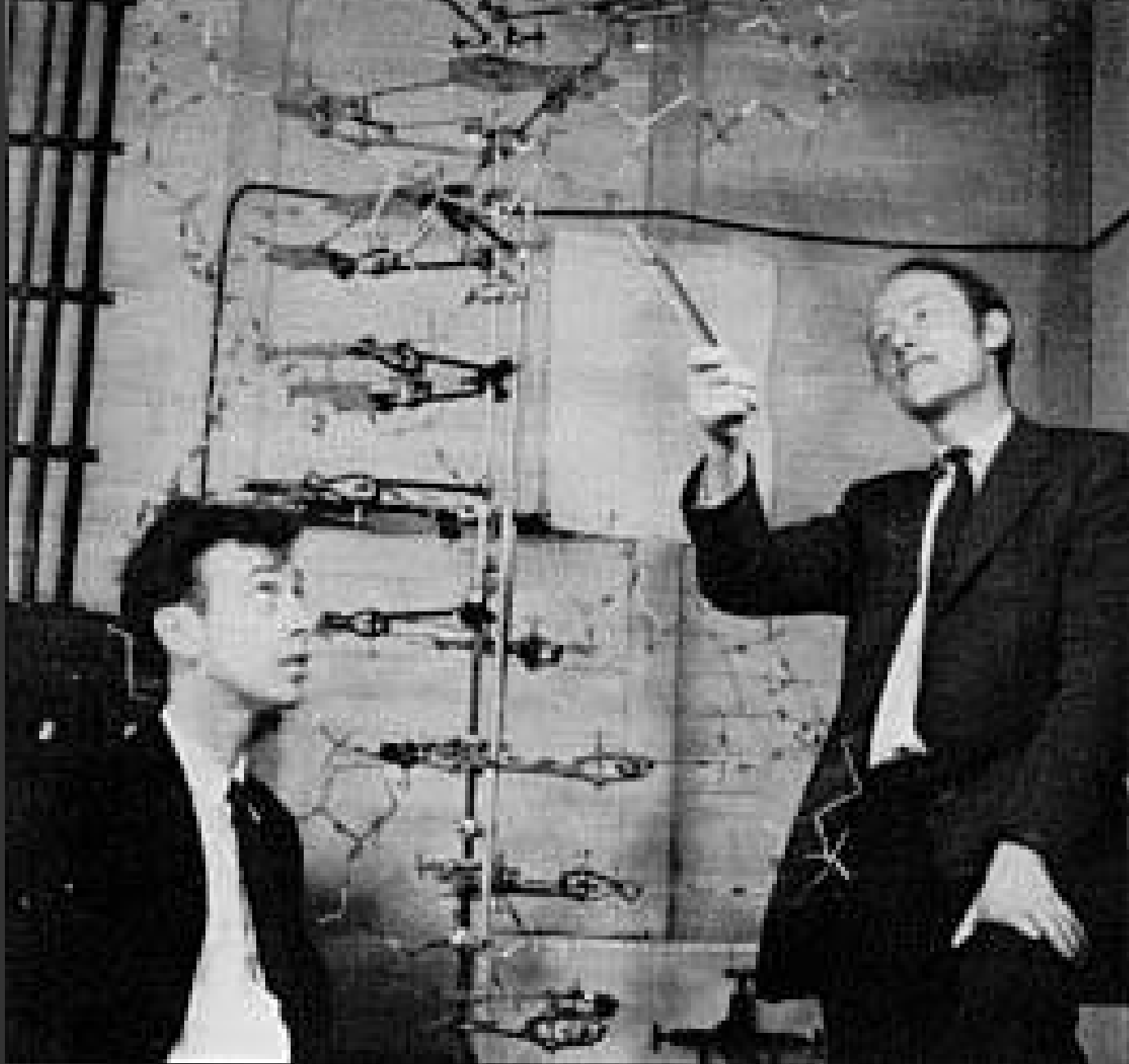


# European Biotechnology Directive

## *Recital 24*

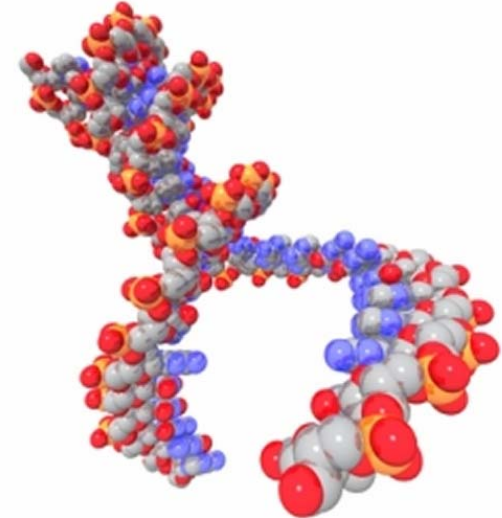
Whereas, in order to comply with the industrial application criterion it is necessary in cases where a sequence or partial sequence of a gene is used to produce a protein or part of a protein, to specify which protein or part of a protein is produced or what function it performs

# Watson and Crick



*Pharmascience v Sanofi-Aventis,  
2006*





# *Patented Medicines (Notice of Compliance) Regulations*

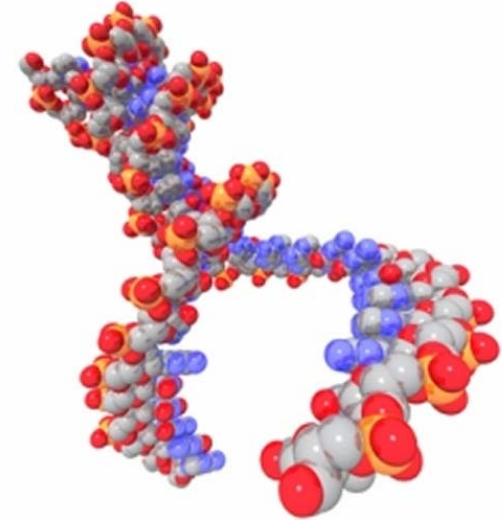
5. (1) Where a person files or has filed a submission for a notice of compliance in respect of a drug and compares that drug with, or makes reference to, another drug for the purpose of demonstrating bioequivalence on the basis of pharmaceutical and, where applicable, bioavailability characteristics and that other drug has been marketed in Canada pursuant to a notice of compliance issued to a first person and in respect of which a patent list has been submitted, the person shall, in the submission, with respect to each patent on the register in respect of the other drug,

...

(b) allege that

...

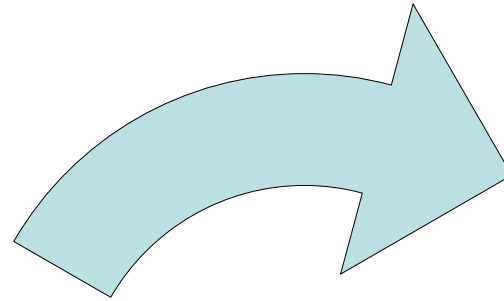
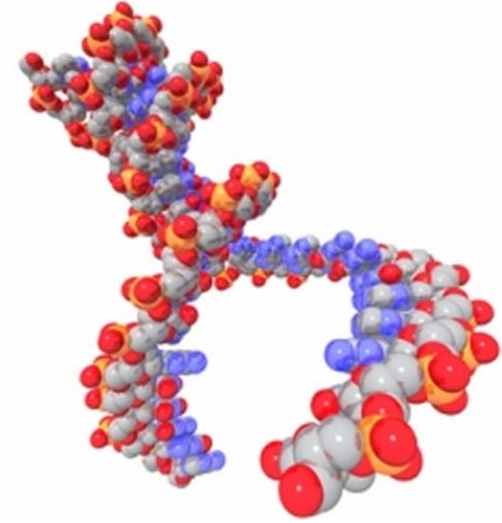
(iv) **no claim for the medicine itself and no claim for the use of the medicine would be infringed by the making, constructing, using or selling by that person of the drug for which the submission for the notice of compliance is filed.**



# *AB Hassle v Canada* *(Minister of National Health* *and Welfare), 2002*

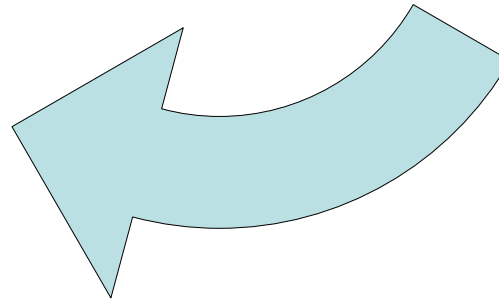
[A] generic company cannot possibly control how everyone in the world uses its product, the prevention of the generic from marketing the product would further fortify and artificially extend the monopoly held by patent holders. ***The patent holder would, therefore, effectively control not just the new uses for the old compound, but the compound itself, even though the compound itself is not protected by the patent in the first place.***

# Central Dogma of Gene Patents



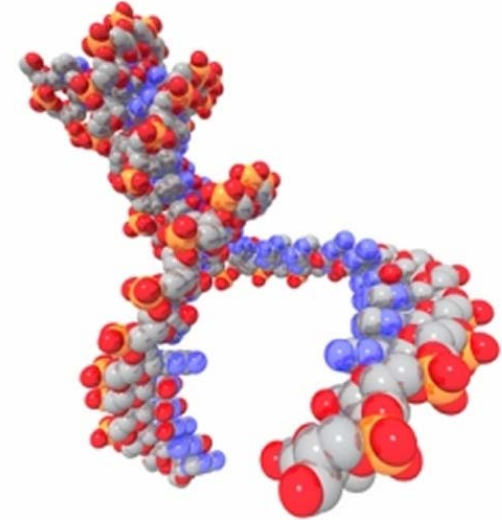
“Invention”

Use



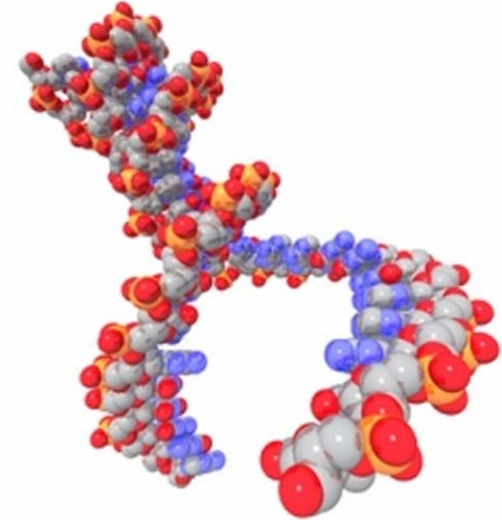
# Watson signs autographs ...





*European Parliament Resolution on  
Patents for Biotechnological Inventions  
October 2005*

- **Council of Europe, Convention Human Rights and Biomedicine, 1997**
- **European Patent Convention**
- **Implementation Report, COM(2005)0312 final**  
*Development and implications of patent law in the field  
of biotechnology and genetic engineering*



# *Implementation Report European Biotechnology Directive*

- **Article 5(3)**

*The industrial application of a sequence or a partial sequence of a gene must be disclosed in the patent application*

- **Recital 23**

*Whereas a mere DNA sequence without indication of a function does not contain any technical information and is therefore not a patentable invention*

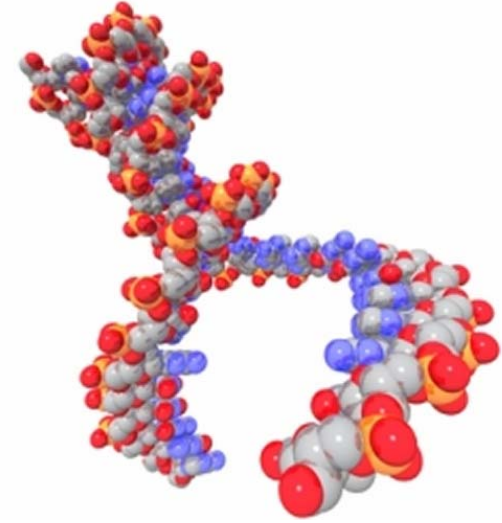
- **Recital 24**

*Whereas, for the purposes of interpreting rights conferred by a patent, when sequences overlap only in parts which are not essential to the invention, each sequence will be considered as an independent sequence in patent law terms*



## *Implementation Report*

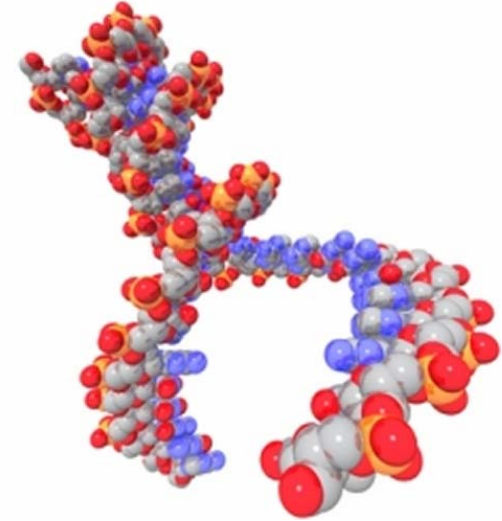
***“This issue has been linked to the freedom of research, although certain research exemptions already exist in patent law. More generally it relates to the balance between investment and potential reward.”***



## *European Parliament Resolution*

### ***The European Parliament ...***

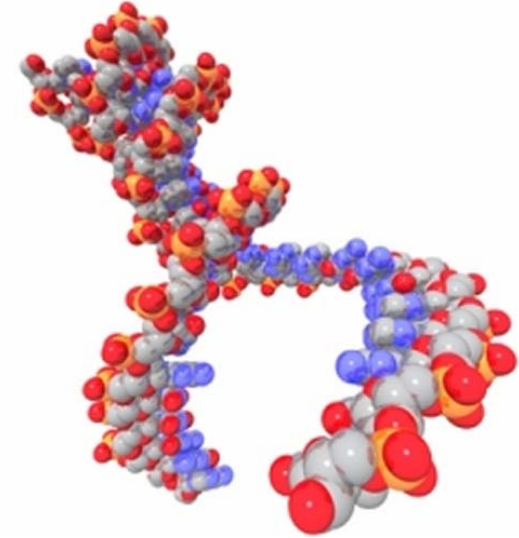
**Calls on the European Patent Office and the Member States to grant patents on human DNA only in connection with a concrete application and for the scope of the patent to be limited to this concrete application so that other users can use and patent the same DNA sequence for other applications (purpose-bound protection)**



## *European Parliament Resolution*

### ***The European Parliament ...***

**Calls on the Commission to examine whether this interpretation of the Directive can be achieved by means of a recommendation to the Member States or whether it requires an amendment to Article 5 of the Directive.**



Economists are at long last emerging from the stage in which price competition was all they saw....it is not that kind of competition which counts but the competition from the new commodity, the new technology, the new source of supply, the new type of organization.

Joseph Schumpeter  
*Capitalism, Society, Democracy* (1942)



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