SCI Day of Science and Careers
Being a patent attorney

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What is a patent attorney?
A patent attorney is

• A lawyer
• Specialised in the legal protection of inventions
• Mostly obtaining protection
  — Drafting patent applications
  — Arguing with patent offices
• Also advising on rights, eg licensing, freedom to operate
• And enforcement of rights, eg litigation
You get to work with

- Inventors and research teams
- Commercial and marketing teams
- Patent attorneys in other countries
- Patent examiners at UK and European Patent Offices
- Other lawyers (solicitors, barristers)
What do you need?
Essential and desirable qualifications

- A science or engineering degree
- Further degree is optional, but not unusual
- Proficiency at written English
- Foreign languages an asset
- Attention to detail
- Good communication and analytical skills
Qualification route

- Must be done under supervision of patent attorney (patent attorney firm or in-house department)
- First level exams – Patent Examination Board or University course (Queen Mary, Bournemouth, Brunel)
- Final UK exams
- Two sets of exams for qualification before European Patent Office – exam and “pre-exam”
- Expect to take 4 to 6 years
- Involves large amount of private study and for many their first experience of exam failure
Not all patents are complicated
What is claimed is:
1. Interferon.
2. Human interferon.
3. Monkey interferon.
What is claimed is:
1. A compound chosen from the group consisting of tetracycline, the mineral acid salts of tetracycline, the alkali metal salts of tetracycline and the alkaline earth metal salts of tetracycline.
2. Tetracycline.
4. Alkali metal salts of tetracycline.
5. Alkaline earth metal salts of tetracycline.
6. Tetracycline hydrochloride.
UNITED STATES PATENT OFFICE

2,230,654

TETRAFLUOROETHYLENE POLYMERS

I claim:
1. Polymerized tetrafluoroethylene.
2. The process of polymerizing tetrafluoroethylene which comprises subjecting it to super-atmospheric pressure.
3. The process of polymerizing tetrafluoroethylene which comprises subjecting it to super-atmospheric pressure in the presence of a catalyst.
What is claimed is:

1. Element 95.
2. The isotope of element 95 having the mass number 241.
3. The isotope of element 95 having the mass number 242.
But often they are...
MEK INHIBITORS AND METHODS OF THEIR USE

Claim 1. A compound of formula:

- R₁, R₂, R₃, R₄, R₅, R₆, and R₇ are independently substituted hydrogen, optionally substituted hydroxyl, alkyl, or optionally substituted cyclic hydrocarbon.
- X is a substituent, optionally substituted hydroxyl, alkyl, or optionally substituted cyclic hydrocarbon.
- Y is a substituent, optionally substituted hydroxyl, alkyl, or optionally substituted cyclic hydrocarbon.
- Z is a substituent, optionally substituted hydroxyl, alkyl, or optionally substituted cyclic hydrocarbon.

Claim 2. A method of treating a disease, disorder, or condition comprising administering to a subject in need thereof a compound of formula:

- R₁, R₂, R₃, R₄, R₅, R₆, and R₇ are independently substituted hydrogen, optionally substituted hydroxyl, alkyl, or optionally substituted cyclic hydrocarbon.
- X is a substituent, optionally substituted hydroxyl, alkyl, or optionally substituted cyclic hydrocarbon.
- Y is a substituent, optionally substituted hydroxyl, alkyl, or optionally substituted cyclic hydrocarbon.
- Z is a substituent, optionally substituted hydroxyl, alkyl, or optionally substituted cyclic hydrocarbon.

Claim 3. A pharmaceutical composition comprising a compound of formula:

- R₁, R₂, R₃, R₄, R₅, R₆, and R₇ are independently substituted hydrogen, optionally substituted hydroxyl, alkyl, or optionally substituted cyclic hydrocarbon.
- X is a substituent, optionally substituted hydroxyl, alkyl, or optionally substituted cyclic hydrocarbon.
- Y is a substituent, optionally substituted hydroxyl, alkyl, or optionally substituted cyclic hydrocarbon.
- Z is a substituent, optionally substituted hydroxyl, alkyl, or optionally substituted cyclic hydrocarbon.

Additional claims for various specific compounds and methods are also provided.
We claim:

1. A compound of formula I:

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R¹, R², R³, R⁴, R⁵, and R⁶ are independently hydrogen, halo, hydroxyl, or alkoxy.
A, X, R¹, R², R³, R⁴, R⁵, and R⁶ are as defined in Group A, Group B, Group C, or Group D:
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Group A:

A is aryl, optionally substituted by halo, alkyl, alkenyl, alkoxy, hydroxy, amino, aldehyde, ketone, or ester.

Group B:

A is heteroaryl, optionally substituted by halo, alkyl, alkenyl, alkoxy, hydroxy, amino, aldehyde, ketone, or ester.

Group C:

A is aralkyl, optionally substituted by halo, alkyl, alkenyl, alkoxy, hydroxy, amino, aldehyde, ketone, or ester.

Group D:

A is alkyl, optionally substituted by halo, alkyl, alkenyl, alkoxy, hydroxy, amino, aldehyde, ketone, or ester.
R^1 and R^2 are independently hydrogen or alkyl;
X is alkyl, halo, haloalkyl, or haloalkoxy;
R', R', R', R', R' and R'' are independently hydrogen, halo, nitro, —NR^5R^6, —OR^7, —NSO_2R^8, —CN,
—SO_3R^9, —SO_3NR^10R^11, —COR^7, —C(O)OR^7,
—C(O)NR^12R^13, —NR^7C(O)OR^7, —NR^12C(O)NR^14R^15,
—NR^7C(O)OR^7, —NR^12C(O)NR^14R^15, —CH(NR^2R^16)3,
(NR^2R^16)3, —CH(NR^2R^16)3(NH)NR^25R^26R^27,
—CH(NR^2R^16)3(NH)(NR^25R^26R^27),
—CH(NR^2R^16)3(NH)(NR^25R^26R^27)N^3,
—CH(NR^2R^16)3(NH)(NR^25R^26R^27)(N^3C),
—CH(NR^2R^16)3(NH)(NR^25R^26R^27)(N^3C)
where the alkyl, alkenyl, alkynyl, cycloalkyl, heteroaryl, and heterocycloalkyl are independently optionally substituted with one, two, three, four, five, six or seven groups independently selected from halo, alkyl, haloalkyl, nitro, optionally substituted cycloalkyl, optionally substituted heterocycloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, —OR^7, —NR^7R^8, —NR^7(N^3C),
—CN, —SO_3R^9, —C(O)OR^7, —C(O)OR^7,
—C(O)NR^12R^13, —NR^7C(O)NR^14R^15, —NR^7C(O)OR^7
and —NR^7C(O)R^17; or one of R, R' and R'' together with the carbon to which they are attached, R' and R'' together with the carbon to which they are attached, and R' and R'' together with the carbon to which they are attached from C(O) or C(NH);
Please ask questions