

REGIONAL BUREAU FOR AFRICA SERIES OF WEBINARS FOR SMES- SESSION 3

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Department for Africa and LDCs

Online 23 June a.m. 2020

ACCESS TO IP

- How SMEs could access intellectual property (IP) for their business.
- Recap of the rights granted by IP, with emphasis on patents, with coverage on identifying and locating IP in the public domain expatiating on the principle that you don't have to own IP to use it
- Introduction to licensing, open source and joint ventures.
- Discussion on licensing will cover differentiating between exclusive, non-exclusive and sole licences;
- Basics of patent searches
- Q &A session



Dr. McLean Sibanda



- Managing Director of Bigen Global Limited (Mauritius)
- Former President of the Advisory
 Council of the International
 Association of Science and
 Technology Parks (IASP)
- Former Chief Executive Officer of The Innovation Hub in South Africa
- Chief drafter of South Africa's Intellectual Property Rights from Publicly Financed Research and Development Act, 2008
- Registered South African patent attorney

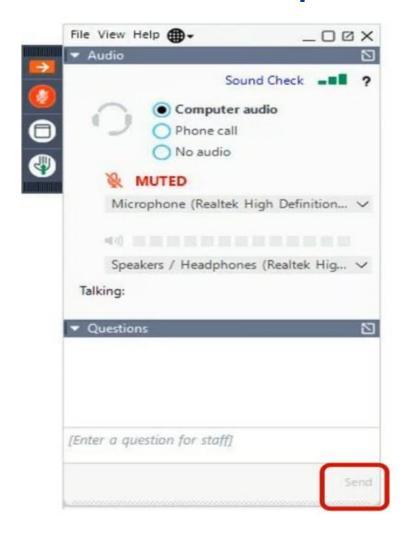
How to ask questions?





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How to ask questions?







Q&A



- Do not worry if we can't address all your questions in today's session
- You can always reach us at the following emails for further questions or information:

rba@wipo.int



Next session

- Working With IP In Your Business
 - July 23 from 14.30 15.30 CET
 - Register here: https://www.wipo.int/meetings/en/details.jsp?meeting_id=58049

Past sessions

- Fundamentals of Intellectual Property and Relevance in Business
 - July 22 from 10.30 11.30 CET
 - Summaries and Presentations will be available here:

https://www.wipo.int/meetings/en/details.jsp?meeting_id=58028

- IP Audits, Due Diligence and Valuation
 - Today July 22 from 14.30 15.30 CET
 - Summaries and Presentations will be available here:

https://www.wipo.int/meetings/en/details.jsp?meeting_id=58029





Access to and Commercialisation of Intellectual Property for Your Business

Series of Webinars for African SMEs, July 2020

Dr McLean Sibanda

Managing Director: Bigen Global Limited

International Consultant and IP Expert (South Africa)

Overview

- Key Intellectual Property Concepts
- You don't have to own it to use it Other People's Intellectual Property
 - A. Public Domain
 - B. Licensing
 - C. Franchising as an example of Licensing
- Patent Search
- Case Studies
- Further Resources for SMEs
- Next in this webinar series:
 - 4. Working With IP In Your Business



Key Concepts on Patents

Patents grant right to:

- exclude others (without permission) to manufacture, exercise, dispose, import, use the patented invention
- rights owner to grant permission to others (licence)
- transfer to others (assignment)

Rights are limited

- 20 year period
- Subject to maintenance
- Territoriality
- Subject to rights of third parties (example of chair)



Key Concepts on Patents

- Importance of disclosure requirement
 - Scope of protection must be clear in claims
 - Sufficient disclosure of invention: i) Teach the invention, ii) Enable others to build on
- It is therefore evident that patent documents are very important sources of technological innovation
 - Disclose not only the invention BUT manner to carry it out
 - Can determine if invention has use in your business if so
 - i) Is it protected in your country?
 - ii) Is the patent still valid and in force (maintenance, and 20 years?)
 - iii) Can you obtain a licence?
 - iv) Could you collaborate with the owners?



Key Concepts on Patents

Patent document is more than just a document

- Source of state of art Avoid duplication in the innovation process
- Jump-start own innovation process and ride on back of others' developments
- Potential commercialisation partners and suppliers
- Competitor developments
- Patents validity and scope
- Search reports



Other People's Intellectual Pro

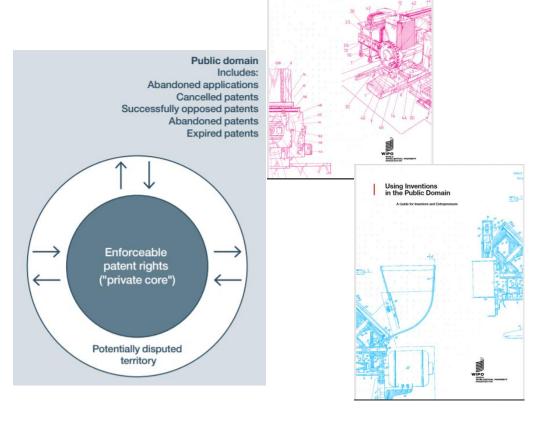
- Public Domain 1) Not protected, 2) IP Rights lapsed or expired, 3) Protected but not in your country
 - Inventions in the Public Domain (Identifying and Using)

https://www.wipo.int/publications/en/details.jsp?id=4501

https://www.wipo.int/edocs/pubdocs/en/wipo_pub_1063.pdf

 Scoping Study on Copyright and Related Rights and the Public Domain

https://www.wipo.int/edocs/mdocs/en/cdip 7/cdip 7 inf 2.pdf





Other People's Intellectual Property

- Licence-in (e.g. from universities and others)
 - Reduce development timelines / Less riskier
 - Focus is adaptation to local conditions

Open Source

- IP available for use and further development
- Read carefully T&C on ownership resultant IP
- Joint Venture (incl. Acquire / Purchase the IP)
 - Where it is strategic and purchase consideration can be in form of shares in the company
 - Technology Transfer: in-licensing with your SME providing understanding of local market



Licensing

- Grant of IP owner's rights
 - Patent manufacture, sell, import, exercise, use
 - Copyright to reproduce a work
 - o etc.
- Another party
- For defined period of time
- In return for an economic interest or other
 - Royalty, Lump sum
 - Another licence cross licence
- Similar to 'lease / rental agreement
- Whole or in part







Licence in







Licensing

Exclusive

- Licensee granted rights to IP
- Licensor cannot grant rights to other parties
- Licensor cannot use IP

Q1. Which type of a licence would you prefer for your intellectual property?

Non-Exclusive

- Licensee granted rights to the IP
- Licensor retains right to use & grant licenses to other parties
- Can be same or other terms

Sole

- Licensee granted rights
- Licensor retains rights to exploit but not grant other licenses

Q2. Would your answer be different for licensing in other people's intellectual property?



Licensing (Anatomy of a Licence Agreement)

0	Definition of Licensor and Licensee	0	Territory
0	Exclusive, Sole, None Exclusive	0	Rights Licensed (Manufacture, use, etc.)
0	Term or Duration	0	Consideration/Royalty payable
0	Subject matter of Licence: Definition of Intellectual Property or Technology	0	Basis for Rovalty (know-how and patents, etc.)
0	Rights to improvements	0	Maintenance of IP
0	Any limitations by Field	0	Infringement
0	Claims by third parties / indemnities	0	Right to sub-licence
0	Warranties by licensor	0	Acknowledgement of Right in IP
0	Recordal of Licence: certain rights granted to licensee	0	Dispute Resolution
0	Breach of contract	0	Restrictions

For More Information on Negotiating licences - issues to consider, refer to: https://snz.co.za/articles/commercial/negotiating-licences-issues-to-consider/



Licensing - Different Forms of IP

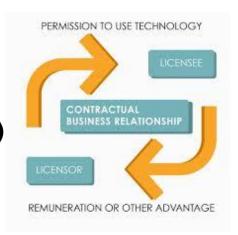
- One or more (whole or part) of rights owners enjoys in each IPR
- Patents (generally extends to Registered Designs)
 - Make, Use, Import, Exercise, Dispose
 - Recordal of exclusive licence to ensure right to sue

Copyright

- Reproduce the work (i.e. copy)
- Adaptation, Publication, Distribution, Performance

Trademarks

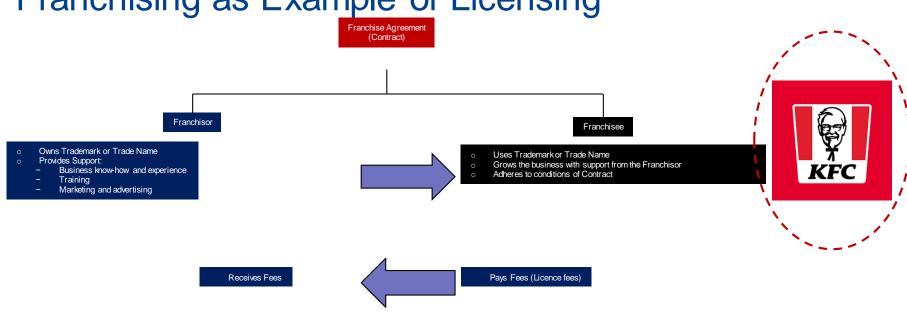
- Use, sell (main consideration to ensure 'non-dilution')
- See Franchising as example







Franchising as Example of Licensing











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- Tools
 - Patent databases (publicly available and proprietary)
 - Both contain same patent information only additional analytical tools in proprietary databases

<u>Different Types of Searches</u>

- Novelty searches
 - All prior art (patent + non-patent literature (Google, etc.))
 - As far back as prior art can go fundamental enquiry Is this new?
- Freedom to operate / Infringement Searches
 - Patent documents in past 20 years (valid and in force)
 - Focus on claims
 - To infringe, all claim integers to be present in 1 patent document



Can search using variety of fields and topics

- Inventor (e.g. Elon Musk, Steve Jobs, etc.)
- Applicant, Patent Owner (Tesla, Apple, Samsung, Elon Musk, etc.)
- Key words (e.g. Coronavirus, Sanitiser, Diabetes, cosmetics, etc.)
- International Patent Classification (e.g. A61K, C22B, etc.) -http://www.wipo.int/classifications/ipc/en/
- Country where patent granted (US, EP, ZA, etc.)
- Filing Date, Priority Date, etc.
- Combinations
- Simple to Advanced Patents



Which patents exist in a given field of technology?

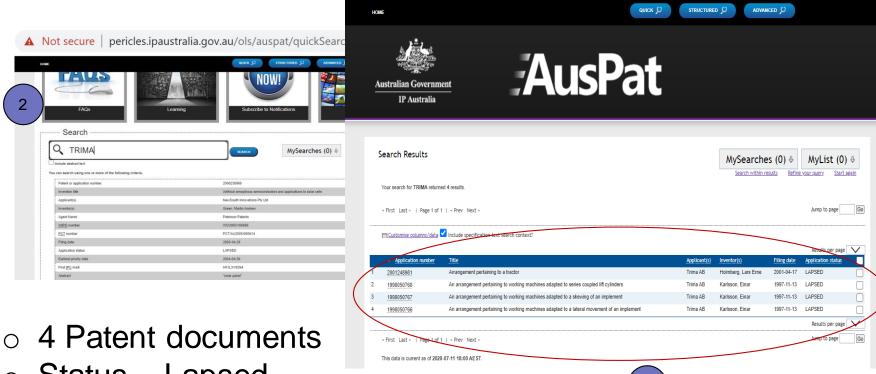
- Imagine your farm machinery company is interested in acquiring a company named
 Trima AB. You are obliged to do a due diligence search to see if this company has any valid patents in Australia.
- Go to the Australian patent search site http://www.ipaustralia.gov.au/auspat/, perform your search and give a brief summary of what you find







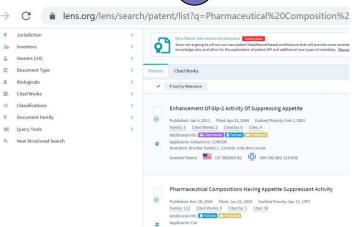
① Not secure | pericles.ipaustralia.gov.au/ols/auspat/quickSearch.do?query...

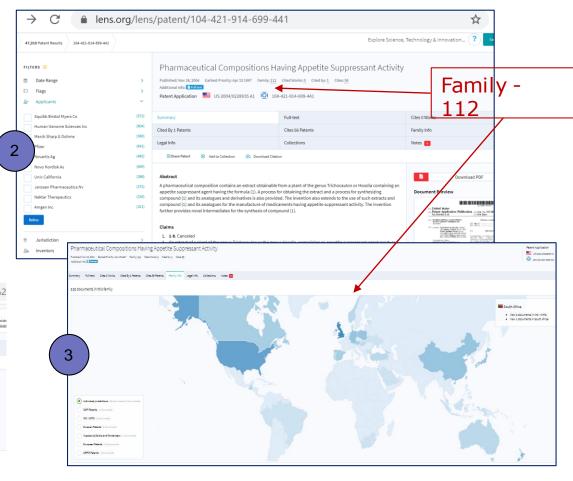


- Status Lapsed
- Patents in public domain



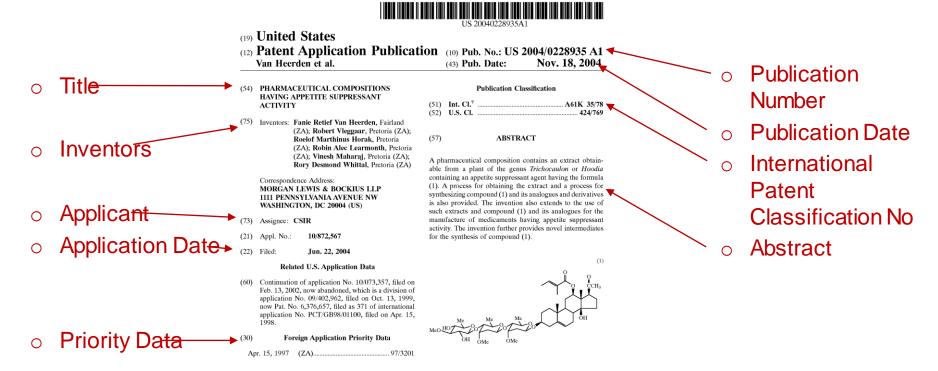
- Looking for patent on Pharmaceutical Composition Having Appetite Suppressant Activity
- Go to www.lens.org
- Enter "full phrase"







Bibliographic Information





US 2004/0228935 A1

Nov. 18, 2004

PHARMACEUTICAL COMPOSITIONS HAVING APPETITE SUPPRESSANT ACTIVITY

[0001] THIS INVENTION relates to steroidal glycosides, to compositions containing such steroidal glycosides and to a new use for these steroidal glycosides and the compositions containing them. The invention further relates to a method of extracting and isolating these steroidal glycosides from plant material, to a method of synthetically producing these steroidal glycosides, and to the products of such an extraction and such a synthesis process.

[0002] In a particular application, the invention relates to an appetite suppressant agent, to a process for synthetically producing the appetite suppressant agent, to a process for extracting the appetite suppressant agent from plant material, to an appetite suppressant composition containing the appetite suppressant agent, and to a method of suppressing an appetite.

[0003] According to the invention, there is provided a process for preparing an extract of a plant of the genus Prichocaulon or of the genus Hoodia, the extract comprising an appetite suppressant agent, the process including the steps of treating collected plant material with a solvent to extract a fraction having appetite suppressant activity, separating the extraction solution from the rest of the plant material, removing the solvent from the extraction solution and recovering the extract. The extract so recovered may be further purified, eg by way of suitable solvent extraction procedures.

[0004] The invention also provides a plant extract made of plants of the group comprising the genus *Trichocaulon* and the genus *Hoodia* and having appetite suppressant activity.

[0005] The extract may be prepared from plant material such as the stems and roots of said plants of the genus Trichocaulon or of the genus Hoodia. The genus Trichocaulon and the genus Hoodia include succulent plants growing in arid regions such as are found in Southern Africa. In one application of the invention, the active appetite suppressant extract is obtained from the species Trichocaulon plifferum. The species Trichocaulon officinale may also be used to provide an active appetite suppressant extract. In another application of the invention, the active appetite suppressant extract may be obtained from the species Hoodia currorii, Hoodia gordnii or Hoodia lagardii. Bioassays conducted by the Applicant on rats have indicated that certain of the extracts possess appetite suppressant activity.

[0006] The plant material may be homogenised in the presence of a suitable solvent, for example, a methanol/ methylene chloride solvent, by means of a device such as a Waring blender. The extraction solution may then be separated from the residual plant material by an appropriate separation procedure such as, for example, filtration or centrifugation. The solvent may be removed by means of the rotary evaporator, preferably in a water bath at a temperature of 60° C. The separated crude extract may then be further extracted with methylene chloride and water before being separated into a methylene chloride extract and a water extract. The methylene chloride extract may have the solvent removed preferably by means of evaporation on a rotary evaporator and the resultant extract may be further purified by way of a methanol/hexane extraction. The methanol/ hexane extraction product may then be separated to yield a methanol extract and a hexane extract. The methanol extract may be evaporated to remove the solvent in order to yield a partially purified active extract.

[0007] The partially purified active extract may be dissolved in methanol, and may be further fractionated by column chromatography, employing silica gel as an adsorption medium and a chicoroform/30methanol mixture as an elaent. Aplurality of different fractions may be obtained, and each may be evaluated, by suitable bioassaying procedures, to determine the appetite suppressant activity thereof.

[0008] A fraction having appetite suppressant activity may preferably be further fractionated such as by column chromatography using silica gel as an adsorption medium and a 9:1 chloroform:methanol solvent, and the resultant subfractions biosasyed for their appetite suppressant activity. A sub-fraction displaying appetite suppressant activity may, if desired, be further fractionated and purified, conveniently using a column chromatographic procedure with silica gel as the adsorption medium and a 9:1 ethylacetate:hexane solvent. The resultant purified is fractions may again be evaluated by suitable bioassay procedures for their appetite suppressant activity.

[0009] The Applicant has found that at least one such purified fraction has good appetite suppressant activity, and the active principle in the fraction was identified by conventional chemical techniques including nuclear magnetic resonance, and was found to be a compound of the structural formula

Specific Description

- Background
- State of the art
- Problems that the invention solves
- Summary description of the invention

NOVELTY SERCHES

The entire patent document including any disclosure outside of patent literature is important

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US 2004/0228935 A1

Nov. 18, 2004

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cell swelling and anoxic changes. Minimal foci of lymphocytic perivascular cuffing were found in some animals and is most likely an incidental observation. In a few rats congestion of mild degree is present in the hepatic sinusoids and should be regarded as an incidental observation.

[0410] An important feature of the invention shown by the results of this study is that no tolerance to any of the samples developed over the test period. This may provide considerable benefit, particularly in relation to the use of the compounds and compositions of the invention in the treatment of obesity.

[0411] While the compounds and compositions of the invention have primarily been described in relation to their properties as appetite suppressants, it should be noted that this expression—"appetite suppressant"—is used berein to denote activity which tends to limit appetite and/or increase the sense of satiety, and thus tends to reduce total calorific intake; this in turn tends to counteract obesity. Accordingly, this invention extends to a method of treating, preventing or combating obesity in a human or non-human animal which comprises administering to said human or non-human animal an obesity treating, preventing or combating amount of a compound of formula (2). A preferred embodiment of this aspect of the invention utilises a composition or extract containing a compound of formula (1).

[0412] The term "animal" as used herein extends to, but is not restricted to, companion animals, e.g. household pets and domesticated animals; non-limiting examples of such animals include cattle, sheep, ferrets, swine, camels, horses, poultry, fish, rabbits, goats, dogs and cats.

[0413] As an anorectic agent or in the treatment or prevention of obesity in a human, a compound of formula (2), preferably of formula (1), or the composition defined in any one of claims 9 and 25-31 hereafter, is advantageously administered to said human in a dosage amount of from about 0.01 mg/kg/day to about 10 mg/kg/day. A preferred dosage range is 0.05 mg/kg/day to 0.5 mg/kg/day. Preferred dosage range is 0.05 mg/kg/day to 0.05 mg/kg/day; especially preferred is 0.5 mg/kg/day to 20 mg/kg/day; especially preferred is 0.5 mg/kg/day to 5 mg/kg/day.

1-8. Canceled

An extract of a plant of the genus Trichocaulon or the genus Hoodia, comprising an appetite suppressant agent produced by a process including the steps of treating plant material with a solvent to extract a fraction having appetite suppressant activity, separating the extraction solution from the rest of the plant material, removing the solvent from the extraction solution and recovering the extract.

- A composition having appetite suppressant activity comprising the extract claimed in claim 9.
- The composition as claimed in claim 10, wherein the composition is admixed with a pharmaceutical excipient, diluent or carrier.
- 12. The composition as claimed in claim 11, wherein the composition is prepared in unit dosage form.
- 13. Canceled
- 14. A pharmaceutical composition comprising the extract as claimed in claim 9.
- 15. A method of suppressing an appetite by administering to a human or animal an effective dosage of a composition as claimed in claim 10.

16-17 Canceled

- 18. An extract of a plant of the genus Trichocaulon or the genus Hoodia, comprising an appetite suppressant agent produced by a process including the steps of pressing plant material to separate sap from solid plant material and recovering the sap free of the solid plant material to form the extract.
- A composition having appetite suppressant activity comprising the extract as claimed in claim 18.
- 20. The composition as claimed in claim 19, wherein the composition is admixed with a pharmaceutical excipient, diluent or carrier.
- The composition as claimed in claim 20, wherein the composition is prepared in unit dosage form.
- 22. Canceled
- A pharmaceutical composition comprising the extract as claimed in claim 18.
- 24. A method of suppressing an appetite comprising administering to a human or animal an effective dosage of the composition as claimed in claim 19.
- 25. A medicament having appetite suppressant activity, said medicament comprising the extract as claimed in claim
- 26. A medicament having appetite suppressant activity, said medicament comprising the extract as claimed in claim 19
- 27-121. Canceled

* * * * *

Claims

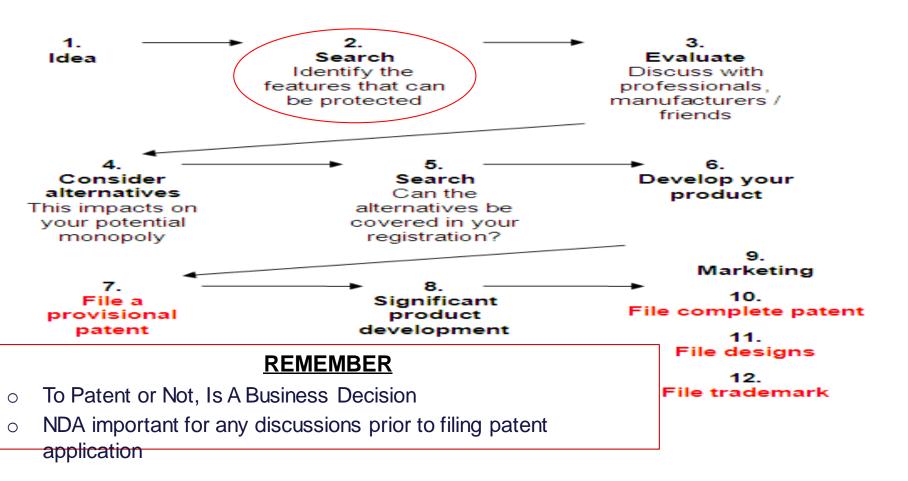
- Numbered sentences typicall found at the end of the patent specification
- Define the monopoly being sought (This is the Invention for which protection is sought)
- In this case- original 121 claims
- Reduced to 14 claims (probably owing to search reports)

FREEDOM TO OPERATE SERCHES

1. Claims most important as they define scope of protection; 2. Territory



Patent Search within context of "Idea to Market"



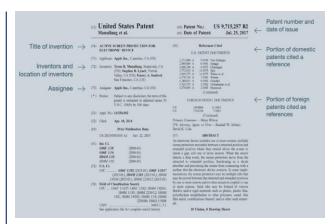


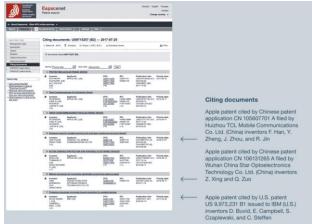
Patent Search Databases

- WIPO PatentScope
 - https://www.wipo.int/patentscope/en/
- USPTO
 - http://www.uspto.gov
- Espacenet
 - https://worldwide.espacenet.com/patent/
- Patent Lens
 - https://www.lens.org/
- ARIPO
 - https://eservice.aripo.org/pdl/pqs/quickSearchScreen.do

Case Studies (Public Domain)

- Public Domain Patent Documents (Patent publication for U.S. patent no. US 9,715,257 B2)
- Invention actively protecting an electronic device display screen from damage due to inadvertent dropping
- O Patent Status (Espacenet): Only applied & granted in USA
- Invention knowledge described in patent document is free to use and in the public domain, <u>unless the invention is also</u> <u>covered by another patent in the jurisdiction where it would</u> <u>be exploited</u> (may need a licence in that case)
- Patent Document TEACHES the invention
- Improvements you make you will own
- O Background technology that preceded this invention: the prior art is listed in the patent document (168 separate prior art references in patent US 9,715,257 B2)
- Inventors (details on the cover page): Search on-line including any press release, YouTube videos and social media (Network and expand your sources of support)







Case Studies (Integrating

Patents & Public Domain in Product Development)

CSIR SUPPORTS NATIONAL COVID-19 RESPONSE WITH LOCALLY DEVELOPED VENTILATOR

Publication Date: Wednesday, July 8, 2020

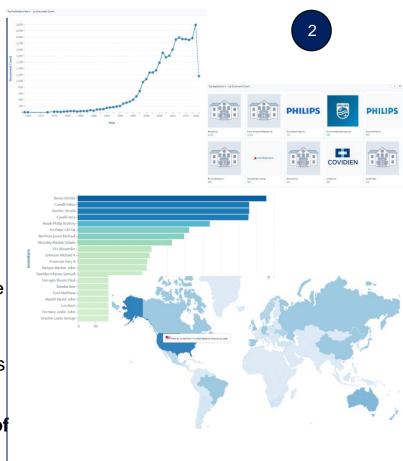
The CSIR, an entity of the Department of Science and Innovation (DSI) – in collaboration with a number of local partners – has completed work on a local ventilator to be rolled out nationwide to patients showing respiratory distress in the early phase of COVID-19 infection.

The development forms part of government's National Ventilator Project (NVP) under the auspices of the Department of Trade, Industry and Competition (**the dtic**), and is supported by the Solidarity Fund. The first batch of ventilators will be provided to state hospitals around the country that are currently experiencing pressure due to the unavailability of equipment to deal with the pandemic.



https://www.csir.co.za/csirsupports-national-covid-19-response-locallydeveloped-ventilator

- Patent Lens Search: "Positive Airway Pressure Ventilators" –
 36,987 documents
- Growing interest over the years
- Details of patent owners
 - No patents in Africa review of patent documents should fast-track product development





Case Studies (Licence

from Research Institution)

eye slices®

3

relax restore revive®







CRYOGEL POLYMER
Globally unique technology

Medical grade polymer technology forms the basis of our range. It is a safe, non-toxic, dermal delivery system (silicone-free) that is:

- . Cooling (without a fridge)
- Soothing
- Re-usable
- · Effective
- Water-based

Eyeslices founded by Kerryne Krause-Neufeldt

Public Institutions as source of IP



- Chance meeting with a manufacturer led to licensing of a unique technology from CSIR (South Africa) Research Polymers Department
- Engineered polymer technology for delivering ingredients into the skin for the application originally for burns and wounds
- Application to cosmetics was unique
- Negotiated an exclusive license agreement for the technology
- 10 years R&D scaling up technology from laboratory scale

http://www.lionessesofafrica.com/blog/2015/7/31/the-startup-story-of-kerryne-krause-neufeldthttps://www.eyeslices.com/za/about-us/



Case Studies (Licencing University Owne 4)

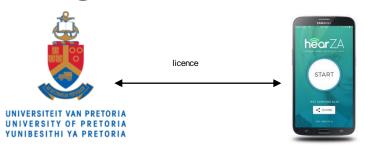








https://innovationedge.org.za/hearscreen-a-case-study-in-repurposing-ideas/https://www.hearxgroup.com/



- Prof. De Wet Swanepoel Lead Inventor and audiologist came up with idea as part of research at University of Pretoria
- Start-up HearZA established and licenced the IP from the university
- Further development and commercialisation
- Pivoted business to other uses and new trademarks and IP (copyright, know-how, etc.)



Case Studies (Licensing University Owned IP)







https://www.globalhealthbiotech.co.za/



- Prof. Keolebogile Shirley Motaung, Founder & CEO of Global Health Biotech (GHB) focused on bone regeneration
- Manufactures natural anti-inflammatory ointment/cream named La-Africa Soother (LAS) from medicinal plants
- Patents (in multiple jurisdiction) and underlying knowhow licenced by Tshwane University of Technology (TUT) to GHB
- GHB raised funding to further develop the IP and owns improvements made
- Royalties payable to TUT



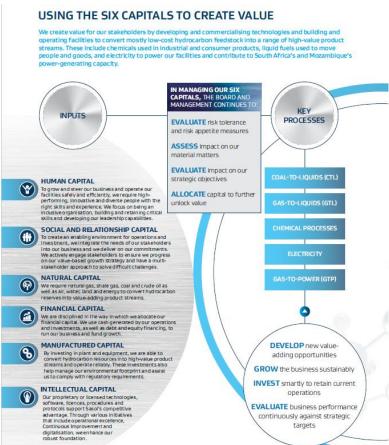
Case Studies (Sasol) Technology Transfer & New IP Development

6

- 1927: South African oil-fromcoal industry study
- After WW2, rights to a method of using the Fischer-Tropsch process patented by M W Kellogg Corp were acquired
- 1950: government incorporated a State-owned company South African Coal, Oil and gas Corporation
- Initial reactors from Kellogg and Lurgi gasifiers were tricky and expensive to operate.
- Sasol improved these reactors (new intellectual property and patents created) to eventually yield about 6500 barrels per day

Sasol Limited



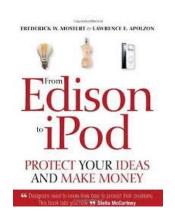


http://www.sharedata.co.za/data/000652/pdfs/SASOL_ar_jun18_part1.pdf



Further Resources for SMEs

- ** Note the links on the different slides to other relevant material and sites
- From Edison to IPod Protect Your Ideas and Make Money (2007)
- Crafting an Effective Patent Strategy: How Uber Built Its Portfolio, 2019
- WIPO IP Panorama
- Identifying Inventions in the Public Domain - A Guide for Inventors and Entrepreneurs, WIPO (2020)
- Using Inventions in the Public Domain A
 Guide for Inventors and Entrepreneurs,
 WIPO (2020)





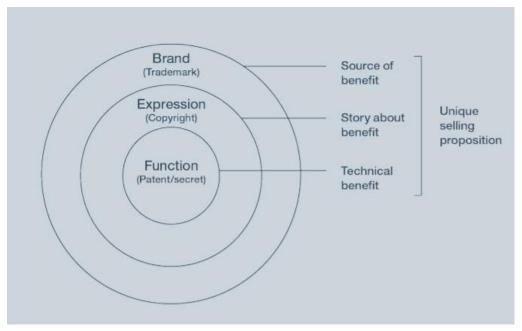


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Evchanging Value - Negotiating

IP and Your Business

- This third webinar of a four part series has prepared us to consider how your business may beneficially use IP
- The following webinar will pull together the different aspects covered in this and the other two earlier webinar in this series, by focusing on
 - 4. Working With IP In Your Business



Source: https://www.wipo.int/edocs/pubdocs/en/wipo_pub_1063.pdf



Thank you!



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