Singapore's Inputs in response to Circular C. 9199

Pursuant to the decision of the thirty-fifth session of the Standing Committee on the Law of Patents (SCP), Member States were invited to send to Secretariat any inputs for the preparation of the following documents and a new webpage:

(i) a draft reference document on the exception regarding extemporaneous preparation of medicines. The inputs may relate to, for example, relevant court cases, challenges faced by Member States in implementing the exception and the results of the national/regional implementation;

(ii) a study on various aspects of the unity of invention, including divisional application;

(iii) compilation of laws and practices relating to the patentability of artificial intelligence (AI)-related inventions (update of document SCP/30/5);

(iv) a dedicated webpage on the expedited examination program of Intellectual Property Offices (updating the contents of document SCP/35/6);

(v) a document updating SCP/26/5 (Constraints faced by developing countries and LDCs in making full use of patent flexibilities and their impact on the access to affordable especially essential medicines for public health purposes in those countries);

(vi) a document updating SCP/25/4 (compilation of court cases with respect to client-patent advisor privilege);

(vii) a document updating SCP/32/6 (patent law provisions that contribute to effective transfer of technology, including sufficiency of disclosure); and

(viii) a study on patent inventorship and ownership issues arising from collaborative research.

Proposed inputs

Accordingly, Singapore has prepared the following.

(i) <u>Exception regarding extemporaneous preparation of medicines.</u>

Section 66(2)(c) of the Singapore Patents Act 1994 ("SPA") provides an exception to infringement of a patent where there is extemporaneous preparation of a medicine. It states as follows:

Meaning of infringement

66. — (1) …

(2) An act which, apart from this subsection, would constitute an infringement of a patent for an invention is not an infringement of a patent if -

...

(c) it consists of the extemporaneous preparation of a medicine for an individual in accordance with a prescription given by a registered medical or dental practitioner or consists of dealing with a medicine so prepared;

The full provision can be found in Annex I.

(ii) <u>A study on various aspects of the unity of invention, including divisional application;</u>

Statutory requirements

Section 25(5)(d) of the SPA requires that the claims in a patent application relate to one invention or to a group of inventions which are so linked as to form a single inventive concept.

Rule 25 of the Singapore Patents Rules ("SPR") further sets out that:

Unity of invention

25.— (1) Without prejudice to the generality of section 25(5)(d), where 2 or more inventions are claimed (whether in separate claims or as alternatives within a single claim), such inventions shall be treated as being so linked as to form a single inventive concept only where there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features.

(2) In this rule, "special technical features" means those technical features which define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

Whether or not a particular technical feature makes a "contribution" over the prior art, and therefore constitutes a "special technical feature", is considered with respect to novelty and inventive step.

Unity is a ground for refusal under the SPA but is not a ground for revocation, and as a consequence there is no judicial or hearing guidance from Singapore on this issue.

Singapore also restricts the search and examination procedure to the first invention as specified in the claims when there are 2 or more inventions claimed. The applicant shall further request for a supplementary search report for each additional invention if he desires a search to be conducted for any subsequent inventions. The relevant provisions may be found in rules 45(1), (1A) and (2) of the SPR as stated below:

Search and examination procedure where 2 or more inventions claimed or new application filed under section 26(11)

45. – (1) If during the preparation of a report under section 29(1)(a) or (b) it appears that an application relates to 2 or more inventions, but they are not so linked as to form a single inventive concept, the search may be restricted to one in relation to the first invention specified in the claims of the application, and the Registrar shall notify the applicant of that fact.

(1A) If during the preparation of an examination report under section 29(1)(c), it appears that an application relates to 2 or more inventions, but they are not so linked as to form

a single inventive concept, the examination may be restricted to one in relation to the first invention specified in the claims of the application, and the Registrar must notify the applicant of that fact.

(2) If the applicant desires a search to be conducted in relation to a second or subsequent invention specified in the claims, he shall, within 2 months from the date of the Registrar's notification referred to in paragraph (1), request on Patents Form 10 for a supplementary search report and pay the prescribed search fee for each invention in respect of which the search is to be made.

Guiding Principles

Guidance for practice in Singapore is taken from Chapter 10 of the PCT International Search and Preliminary Examination Guidelines ("PCT ISPE").

Lack of unity is determined on the basis of the invention(s) as defined by the claims. An application may describe a number of different inventions having different inventive concepts, but an objection of lack of unity will only arise if the different inventions are claimed. Lack of unity can occur between different claims or within a single claim where said claim contains distinct embodiments which are not linked by a single inventive concept. When considering unity, the description and drawings may be taken into account when interpreting the claims to determine the invention.

Lack of unity will be either "*a priori*", that is, before considering the prior art, or may only become apparent "*a posteriori*" following a search of the prior art. All objections must be drafted following the above principles. Additionally, literal or over-technical approaches are discouraged. *A priori* and *a posteriori* lack of unity approaches are described in detail in para. 6.21-6.42 of the Examination Guidelines for patent examination at IPOS, ver. Oct 2023, ("Examination Guidelines"). A copy of the Examination Guidelines is available at: https://go.gov.sg/patentexaminationguide.

Considering the above guiding principles and following the guidance from examples in PCT ISPE paragraphs 10.20-10.59, Singapore provides further information on how unity is assessed under various scenarios:

Claims of different categories and interrelated products – Claims of different categories refer to method claims and product claims such as compound, composition, protein, expression vector, apparatus and system. Interrelated products refer to different objects that complement or work together, for instance a plug and a socket or a transmitter and a receiver or a new form of cable and a sheath stripper particularly adapted to deal with this cable. Unity will generally extend to claims of different categories or of interrelated products related to the same inventive concept, where the claims have corresponding special technical features. Further information can be found in para. 6.52-6.56 and 6.76-6.77 of the Examination Guidelines.

Markush claims – A Markush claim is a claim that defines multiple "functionally equivalent" alternative entities for one or more of the features of the invention and is mainly encountered in the Chemistry field. Unity is met when the alternatives (that is the compounds defined by the claim) are of a similar nature. Compounds are regarded as being of a similar nature where the following criteria are fulfilled:

- (A) all alternatives have a common property or activity, and
- (B) (1) a common structure is present, that is, a significant structural element is shared by all of the alternatives, or

(2) in cases where the common structure cannot be the unifying criteria, all alternatives belong to a recognised class of chemical compounds in the art to which the invention pertains.

In paragraph (B)(1), "significant structural element is shared by all of the alternatives" means that the compounds share a common chemical structure which occupies a large portion of their structures. Where the compounds have only a small portion of their structures in common, the commonly shared structure must constitute a structurally distinctive portion in view of existing prior art, and the common structure must be essential to the common property or activity. The structural element may be a single component or a combination of individual components linked together.

In paragraph (B)(2), "recognised class of chemical compounds" means that there is an expectation from the knowledge in the art that members of the class will behave in the same way in the context of the claimed invention. In other words, each member could be substituted one for the other, with the expectation that the same intended result would be achieved.

An objection of lack of unity should not be taken only on the basis that the alternatives of a Markush grouping belong to different IPC classes. If at least one Markush alternative is not novel over the prior art, an *a posteriori* lack of unity may be a consideration. However, the mere existence of compound(s) falling within the scope of a claim is not unusual and will rarely result in an objection of lack of unity. In such cases, a novelty objection will be taken that will generally result in the applicant amending the claim to remove the prior art compound(s). The Examiner is to take a broad consideration of the relationship between the alternatives. Also, in these situations the issue may be closely linked to inventive step.

Biosequences – Biosequences are generally considered via the same general principles or by the principles as used for chemical inventions. However, there are circumstances that require further detail. While some guidance may be provided, there is still a need to consider the entire circumstance and avoid too technical an approach:

1) If a claim is directed to peptides or proteins having a significant structural similarity and the same activity, then there will be a single inventive concept. This can include sequences where there may be mutations at different and remote parts of a molecule. Note that both structure and function are required. If the claims relate to different mutations (such as SNPs) on the same nucleotide and a common function is stated, then the claim will have unity. However, if no function is stated, then *prima facie* there will be no unity.

2) Nucleotides/Peptides having different sequences will generally not be considered a single invention. This type of situation might arise where screening of a library may identify certain members having desirable activities. Consistent with the principles relating to a Markush grouping, the sequences would need to possess a significant structural homology and a common activity. In practice, the sequences would be grouped according to any homology members the group may possess (including

conservative substitution and the like) and an objection of lack of unity taken on the basis of these groupings.

3) Applications may claim different structurally distinct epitopes from a single receptor. If the parent protein is novel, then it may be appropriate to consider these as a single invention since they relate to the same activity and the same protein. However, if the search identifies that the same protein having this activity are already known, then the invention may lie in identification of further epitopes and each different sequence would constitute a different invention (*a posteriori*).

4) If the only common structural feature of a claim is known, then an *a posteriori* lack of unity may be a consideration. However, this will only be appropriate where the claimed purpose of the common structural element is the same as the known purpose in the prior art. For example, a claim to various sequences having a common catalytic domain may not constitute a single invention if the catalytic domain was previously known for that purpose.

Intermediate and final products – In some cases, claims will be directed towards novel intermediates that are used for the preparation of the final products of the invention. Special rules apply in such cases and are as set out in the PCT ISPE.

Unity of invention is considered present in the context of intermediate and final products where the following two conditions are fulfilled:

(A) the intermediate and final products have the same essential structural element, in that:

(1) the basic chemical structures of the intermediate and the final products are the same, or

(2) the chemical structures of the two products are technically closely interrelated, the intermediate incorporating an essential structural element into the final product, and

(B) the intermediate and final products are technically interrelated, this meaning that the final product is manufactured directly from the intermediate or is separate from it by a small number of intermediates all containing the same essential structural element.

Other considerations are as follows, but in all cases a pragmatic approach should be adopted as to whether a unity objection should be taken:

(a) The intermediate and final products should not be separated in the process by a known compound.

(b) It is possible for a compound to be claimed as an intermediate in the preparation of a final product and to also have other uses. The claims could be drafted in that case to define the final products, and/or compositions containing such, their preparation and their use, as well as claims to the novel intermediates and their preparation and use.

(c) If the intermediate and final products are families of compounds, each intermediate compound must correspond to a compound claimed in the family of the final products. However, some of the final products may have no corresponding compound in the family of the intermediate products so that the two families need not be absolutely congruent.

The intermediate may have the same use as the final product, or it may have any other use. Any other use of this intermediate may be considered a further invention. Furthermore, the final product should be manufactured directly from the intermediate or from the intermediate via a small number of other intermediates having similar structure.

Further information on the assessment of unity for the above-described scenarios on claims of different categories and interrelated products, Markush claims, biosequences, and intermediate and final products can be found in para. 6.57-6.75 of the Examination Guidelines.

Divisional applications

Singapore allows an applicant to file a divisional application in respect of any part of the matter contained in the originally filed application, i.e., parent application, where the date of filing of the parent application shall be treated as the date of filing of the divisional application. The divisional application must not contain any additional matter extending beyond that disclosed in the original application to satisfy the requirements under section 84(1) of the SPA. The relevant provisions are section 26(11) of the SPA and rule 27 of the SPR (see Annex II).

As provided in section 26(11) of the SPA, a new (divisional) application can be filed after the parent application has been filed, but before the applicant satisfies the condition under section 30(c) for the parent application or before the parent application is refused, withdrawn, treated as or taken to be withdrawn or treated as abandoned or as having been abandoned.

A (first) divisional application may serve as the original application for a further (second) divisional application. However, the first divisional application must be pending at the time its further (second) divisional application is filed. The original application need not be pending for the second divisional application to be derived from the first divisional application.

More details are provided in para. 6.91-6.95 of the Examination Guidelines.

(iii) <u>Compilation of laws and practices relating to the patentability of artificial intelligence (AI)-</u> related inventions (update of document SCP/30/5);

The general laws and principles relating to patentability of an invention would apply to Alrelated inventions. This includes section 13(1) of the SPA, which states:

Patentable inventions

13.—(1) Subject to subsection (2), a patentable invention is one that satisfies the following conditions:

- (a) the invention is new;
- (b) it involves an inventive step; and
- (c) it is capable of industrial application.

In addition, Singapore provides specific guidance for determining if an AI-related invention could satisfy the statutory requirements as set out in section 13(1) of the SPA.

Section 13(1) contains the word "invention". In determining whether or not the claims define "an invention", the Examiner should take into account the substance rather than the form of the claims in order to identify the actual contribution which is made by the claimed subject matter, having regard to the problem to be solved, how the claimed subject matter works, and what its advantages are.

A mathematical method *per se* is not an invention. The Examination Guidelines has stated that the neural networks, support vector machines, discriminant analysis, decision trees, k-means and other such computational models and algorithms applied in artificial intelligence and machine learning are, by themselves, mathematical methods, and are hence not considered to be "an invention". The mere use of a conventional computer hardware to implement an AI method is unlikely to render the actual contribution to go beyond the underlying mathematical method.

In contrast, if the AI-related invention involves the application of AI to solve a specific problem such as recognising human speeches or images, the actual contribution is likely considered to go beyond the underlying mathematical method and could be regarded as "an invention". In addition to solving a specific problem, the claim should also be functionally limited to solve this specific problem either explicitly or implicitly. This can be achieved by establishing a sufficient link between the specific problem and the steps of the mathematical method, for example, by clearly specifying how the input and the output of the sequence of mathematical steps relate to the specific problem, so that the mathematical method is causally linked to solve the specific problem.

Further information can be found in para. 8.22-8.27 of the Examination Guidelines.

(iv), (v), (vi) and (vii) Document updating SCP/35/6, SCP/26/5, SCP/25/4 and SCP/32/6

Singapore has no updates.

(viii) <u>A study on patent inventorship and ownership issues arising from collaborative research.</u>

Section 19(2) of the SPA provides that:

Right to apply for and obtain patent

19. – (1)...

(2) A patent for an invention may be granted –
(a) primarily to the inventor or joint inventors;

(b) in preference to paragraph (a), to any person or persons who, by virtue of any enactment or rule of law, or any foreign law or treaty or international convention, or by virtue of an enforceable term of any agreement entered with the inventor before the making of the invention, was or were at the time of the making of the invention entitled to the whole of the property in it (other than equitable interests) in Singapore; or

(c) in any event, to the successor or successors in title of any person or persons mentioned in paragraph (a) or (b) or any person so mentioned and the successor or successors in title of another person so mentioned,

and to no other person.

Sections 24(1) and (2) of the SPA further provide that the inventor or joint inventors of an invention have a right to be mentioned as such in any patent granted for their invention, and where the applicant is not the sole inventor or the applicants are not the joint inventors, the applicant must file a statement with the Registry to identify the person or persons whom the applicant believes to be the inventor or inventors, and indicate the derivation of the applicant's or the applicants' right to be granted the patent.

In collaborative research, dispute to the inventorship and ownership may arise if contributions to the inventive concept and/or assignment of rights are not clear. Such disputes could also result in difficulties in facilitating successful transfer of technology.

An example in Singapore's context is the case of *Cicada Cube Pte Ltd v National University Hospital (Singapore) Pte Ltd* [2018] SGCA 52. National University Hospital (Singapore) Pte Ltd (NUH) had engaged Cicada Cube Pte Ltd (Cicada) to develop a software for a laboratory test ordering and result reporting system. Cicada subsequently filed a patent for a laboratory specimen collection management system", naming its employees as inventors. NUH challenged that its employees were the actual inventors, and accordingly, it should be entitled to the ownership. The High Court determined that NUH's employee contributed to the first inventive concept while Cicada's employees contributed to a second inventive concept, and accordingly, Cicada and NUH should be named as co-owner. Both Cicada and NUH appealed to the Court of Appeal which upheld the High Court decision on the same grounds.

In another case before the Singapore Courts, *Energenics Pte Ltd v Musse Singapore Pte Ltd and another suit* [2013] SGHCR 21, Musse Singapore (Musse) filed a patent application naming 4 inventors. Energenics Pte Ltd (Energenics) purported to assert its rights and interest in the invention by claiming that its then-employee, who was named as one of the inventor, had contributed to the inventive concept in the course of his duties while he was under Energenics's employ, and accordingly, Energenics has ownership rights in the invention. Energenics also claimed that there was a fifth inventor who had contributed to the inventive concept and had together with his employer MNT Consultants (UK) Limited, assigned all the rights and interest in the invention to Energenics. The patent application was eventually abandoned.

To overcome some of these issues, Singapore implemented the National IP Protocol in 2018 to facilitate technology transfer from the government to commercial enterprises and startups. It provides a common framework for industry engagement and how IP shall be owned, protected, used and commercialised. The protocol brings about the following benefits:

- (i) to expedite effective IP commercialization for companies through streamlined IP practices at research institutes, universities and public agencies;
- (ii) to create greater flexibility for IP terms that cater to business needs; and
- (iii) to balance the commercial interests of businesses with the national interest of creating maximum value from publicly funded R&D.

Singapore also has provisions in place to resolve disputes on inventorship and ownership issues. Where a person has been mentioned as a sole or joint inventor under section 24 of the

SPA, any other person who alleges that the former ought not to have been mentioned may at any time apply to the Registrar for a certificate to that effect (see section 24(3) of the SPA). At any time before a patent has been granted for an invention, any person may refer to the Registrar the question whether the person is entitled to be granted a patent. Where the patent has been granted, any person having or claiming a proprietary interest in or under the patent may refer to the Registrar the question of (a) who is or are the true proprietor or proprietors of the patent; (b) whether the patent should have been granted to the person or persons to whom it was granted; or (c) whether any right in or under the patent should be transferred or granted to any other person or persons (see sections 20, 21, 47 and 48 of the SPA).

The full provisions of sections 19, 20, 21, 24, 47 and 48 of the SPA can be found in Annex III.

Annex I – Section 66 of the SPA

Meaning of infringement

66.- (1) Subject to the provisions of this Act, a person infringes a patent for an invention if, but only if, while the patent is in force, the person does any of the following things in Singapore in relation to the invention without the consent of the proprietor of the patent:

- (a) where the invention is a product, the person makes, disposes of, offers to dispose of, uses or imports the product or keeps it whether for disposal or otherwise;
- (b) where the invention is a process, the person uses the process or the person offers it for use in Singapore when the person knows, or it is obvious to a reasonable person in the circumstances, that its use without the consent of the proprietor would be an infringement of the patent;
- (c) where the invention is a process, the person disposes of, offers to dispose of, uses or imports any product obtained directly by means of that process or keeps any such product whether for disposal or otherwise.

(2) An act which, apart from this subsection, would constitute an infringement of a patent for an invention is not an infringement of a patent if -

- (a) it is done privately and for purposes which are not commercial;
- (b) it is done for experimental purposes relating to the subject matter of the invention;
- (c) it consists of the extemporaneous preparation of a medicine for an individual in accordance with a prescription given by a registered medical or dental practitioner or consists of dealing with a medicine so prepared;
- (d) it consists of the use of a product or process in the body or operation of a relevant aircraft, hovercraft or vehicle which has temporarily or accidentally entered or is crossing Singapore (including the airspace above it and its territorial waters) or the use of accessories for such a relevant aircraft, hovercraft or vehicle;
- (e) it consists of the use, exclusively for the needs of a relevant ship, of a product or process in the body of the ship or in its machinery, tackle, apparatus or other accessories, in a case where the ship has temporarily or accidentally entered the territorial waters of Singapore;
- (f) it consists of the use of an exempted aircraft which has lawfully entered or is lawfully crossing Singapore as mentioned in paragraph (d) or of the importation into Singapore, or the use or storage, of any part or accessory for that aircraft;
- (g) subject to subsections (3) and (6), it consists of the import, use or disposal of, or the offer to dispose of, any patented product or any product obtained by means of a patented process or to which a patented process has been applied, which is produced by or with the consent (conditional or otherwise) of the proprietor of the patent or any person licensed by the proprietor, and for this purpose "patent" includes a patent granted in any country outside Singapore in respect of the same or substantially the

same invention as that for which a patent is granted under this Act and "patented product", "patented process" and "licensed" are to be construed accordingly;

- (h) it consists of the doing of any thing set out in subsection (1) in relation to the subject matter of the patent to support any application for marketing approval for a pharmaceutical product, provided that any thing produced to support the application is not —
 - (i) made, used or sold in Singapore; or
 - (ii) exported outside Singapore,

other than for purposes related to meeting the requirements for marketing approval for that pharmaceutical product; or

- (i) subject to subsection (6), it consists of the import, disposal or offer to dispose of a patented pharmaceutical product for use by or on a specific patient in Singapore, or the use of that product by or on that patient, where
 - (i) that product is required for use by or on that patient;
 - (ii) the relevant authority has granted approval specifically for the import of that product for use by or on that patient; and
 - (iii) that product was produced by or with the consent (conditional or otherwise) of the proprietor of the patent or any person licensed by the proprietor (and for this purpose "patent" includes a patent granted in any country outside Singapore in respect of the same or substantially the same product and "licensed" is to be construed accordingly).

(3) Subsection (2)(g) does not apply to the import of any patented pharmaceutical product by any person (called in this subsection and subsection (4) the importer) if —

- (a) the product has not previously been sold or distributed in Singapore by or with the consent (conditional or otherwise) of the proprietor of the patent or any person licensed by the proprietor of the patent to sell or distribute the product in Singapore;
- (b) the import of the product by the importer would result in the product being distributed in breach of a contract between
 - (i) the proprietor of the patent; and
 - (ii) any person licensed by the proprietor of the patent to distribute the product outside Singapore; and
- (c) the importer has actual or constructive knowledge of the matters referred to in paragraph (b).

(4) For the purposes of subsection (3), where the importer has received a written notice containing the prescribed particulars, the importer is deemed to have constructive knowledge of the matters referred to in subsection (3)(b).

(5) To avoid doubt, in subsection (3), "patent" does not include a patent granted in any country outside Singapore in respect of the same or substantially the same product and "licensed" is to be construed accordingly.

(6) Subsection (2)(g) and (i) does not apply to the import or sale of, or the offer to sell, any relevant health product produced for export to any country, other than Singapore, which is an eligible importing member of the World Trade Organisation.

(7) In this section —

"eligible importing member", in relation to the World Trade Organisation, means a member of the World Trade Organisation which -

- (a) is a least-developed country; or
- (b) has given the Council for TRIPS the notification referred to in
 - (i) paragraph 1(b) of the Doha Declaration Implementation Decision; or
 - (ii) paragraph 1(b) of the Annex to the TRIPS Agreement;

"exempted aircraft" means an aircraft to which section 30 of the Air Navigation Act 1966 applies;

"relevant ship" and "relevant aircraft, hovercraft or vehicle" mean, respectively, a ship and an aircraft, a hovercraft or a vehicle registered in, or belonging to, any country, other than Singapore, which is —

- (a) a party to the Paris Convention; or
- (b) a member of the World Trade Organisation.

Annex II – Section 26 of the SPA and rule 27 of the SPR

Date of filing application

26.— (1) Subject to the provisions of this Act, the date of filing an application for a patent is taken to be the earliest date on which the documents filed at the Registry to initiate the application satisfy the following conditions:

- (a) the documents indicate that a patent is sought;
- (b) the documents identify the applicant for the patent; and
- (c) the documents contain
 - (i) something which is or appears to be a description of the invention for which the patent is sought; or
 - (ii) where a declaration under section 17(2) is made in or in connection with the application
 - (A) a reference to an earlier relevant application specified in the declaration;
 - (B) such information on the earlier relevant application as may be prescribed; and
 - (C) a statement that the description of the invention for which the patent is sought is incorporated in the application by reference to, and is completely contained in, the earlier relevant application, as filed.

(11) Where, after an application for a patent has been filed, but before the applicant satisfies the condition under section 30(c), or the application is refused, withdrawn, treated as or taken to be withdrawn, or treated as abandoned or as having been abandoned —

- (a) a new application is filed by the original applicant or the original applicant's successor in title in accordance with the rules in respect of any part of the matter contained in the earlier application; and
- (b) the conditions in subsection (1)(a), (b) and (c)(i) or (ii) are satisfied in relation to the new application (without the new application contravening section 84),

the new application is treated as having, as its date of filing, the date of filing of the earlier application.

New applications under section 26(11)

...

27.— (1) Subject to paragraphs (2) and (3), a new application for a patent which includes a request that it be treated as having as its date of filing the date of filing of an earlier application may be filed in accordance with section 26(11) —

- (a) of the applicant's own volition; or
- (b) to comply with the requirements of section 25(5)(d)

(2) Where possible, the description and drawings of the earlier application and the new application shall respectively relate only to the matter for which protection is sought by that application.

(3) Where it is necessary for an application to describe the matter for which protection is sought by another application, it shall include a reference by number to that other application.

Annex III – Sections 2, 19, 20, 21, 24, 47 and 48 of the SPA

Interpretation

2.—(1) In this Act, unless the context otherwise requires —

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"inventor", in relation to an invention, means the actual deviser of the invention and "joint inventor" is to be construed accordingly;

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Right to apply for and obtain patent

19.—(1) Any person may make an application for a patent either alone or jointly with another.

- (2) A patent for an invention may be granted
 - (a) primarily to the inventor or joint inventors;
 - (b) in preference to paragraph (a), to any person or persons who, by virtue of any enactment or rule of law, or any foreign law or treaty or international convention, or by virtue of an enforceable term of any agreement entered into with the inventor before the making of the invention, was or were at the time of the making of the invention entitled to the whole of the property in it (other than equitable interests) in Singapore; or
 - (c) in any event, to the successor or successors in title of any person or persons mentioned in paragraph (*a*) or (*b*) or any person so mentioned and the successor or successors in title of another person so mentioned,

and to no other person.

(3) Except so far as the contrary is established, a person who makes an application for a patent is taken to be the person who is entitled under subsection (2) to be granted a patent and 2 or more persons who make such an application jointly are taken to be the persons so entitled.

Determination before grant of questions about entitlement to patents, etc.

20.—(1) At any time before a patent has been granted for an invention —

- (a) any person may refer to the Registrar the question whether the person is entitled to be granted (either alone or with any other persons) a patent for that invention or has or would have any right in or under any patent so granted or any application for such a patent; or
- (b) any of 2 or more co-proprietors of an application for a patent for that invention may so refer the question whether any right in or under application should be transferred or granted to any other person, and the Registrar must determine the question and may make such order as the Registrar thinks fit to give effect to the determination.

(2) Where a person refers a question relating to an invention under subsection (1)(a) to the Registrar after an application for a patent for the invention has been filed and before a patent is

granted pursuant to the application, then, unless the application is refused or withdrawn before the reference is disposed of by the Registrar, the Registrar may, without limiting subsection (1) and subject to subsection (6) -

- (a) order that the application proceeds in the name of that person, either solely or jointly with that of any other applicant or any specified applicant;
- (b) where the reference was made by 2 or more persons, order that the application proceeds in all their names jointly;
- (c) refuse to grant a patent pursuant to the application or order the application to be amended so as to exclude any of the matter in respect of which the question was referred; or
- (d) make an order transferring or granting any licence or other right in or under the application and give directions to any person for carrying out the provisions of any such order.
- (3) Where a question is referred to the Registrar under subsection (1)(a) and -
 - (a) the Registrar orders an application for a patent for the invention to which the question relates to be so amended;
 - (b) any such application is refused under subsection (2)(c) before the Registrar has disposed of the reference (whether the reference was made before or after the publication of the application); or
 - (d) any such application is refused under any other provision of this Act or is withdrawn before the Registrar has disposed of the reference, but after the publication of the application,

the Registrar may order that any person by whom the reference was made may within the prescribed period make a new application for a patent for the whole or part of any matter comprised in the earlier application or (as the case may be) for all or any of the matter excluded from the earlier application, subject in either case to section 84, and in either case that, if such a new application is made, it is treated as having been filed on the date of filing the earlier application.

(4) Where a person refers a question under subsection (1)(*b*) relating to an application, any order under subsection (1) may contain directions to any person for transferring or granting any right in or under the application.

(5) If any person to whom directions have been given under subsection (2)(d) or (4) fails to do anything necessary for carrying out any such directions within 14 days after the date of the directions, the Registrar may, on application made to the Registrar by any person in whose favour or on whose reference the directions were given, authorise him, her or it to do that thing on behalf of the person to whom the directions were given.

(6) Where on a reference under this section it is alleged that, by virtue of any transaction, instrument or event relating to an invention or an application for a patent, any person other than the inventor or the applicant for the patent has become entitled to be granted (either alone or with any other persons) a patent for the invention or has or would have any right in or under any patent so

granted or any application for any such patent, an order must not be made under subsection (2)(a), (b) or (d) on the reference unless notice of the reference is given to the applicant and any such person, except any of them who is a party to the reference.

(7) If it appears to the Registrar on a reference of a question under this section that the question involves a matter which would be more conveniently dealt with by the court, the Registrar may decline to deal with it and, without prejudice to the court's jurisdiction to determine any such question and make a declaration, the court has jurisdiction to do so.

(8) No direction may be given under this section so as to affect the mutual rights or obligations of trustees or of the personal representatives of deceased persons, or their rights or obligations as such.

Determination after grant of questions referred before grant

21. If a question with respect to a patent or application is referred by any person to the Registrar under section 20, and is not determined before the time when the application is first in order for a grant of a patent pursuant to the application, that fact does not prevent the grant of a patent, but on its grant that person is treated as having referred to the Registrar under section 47 any question mentioned in that section which the Registrar thinks appropriate.

Mention of inventor

24.—(1) The inventor or joint inventors of an invention have a right to be mentioned as such in any patent granted for the invention and also have a right to be so mentioned if possible in any published application for a patent for the invention and, if not so mentioned, a right to be so mentioned in accordance with the rules in a prescribed document.

(2) Unless an applicant for a patent has already given the Registry the information mentioned in this subsection, the applicant for a patent must, within the prescribed period, file with the Registry a statement —

- (a) identifying the person or persons whom the applicant believes to be the inventor or inventors; and
- (b) where the applicant is not the sole inventor or the applicants are not the joint inventors, indicating the derivation of the applicant's or the applicants' right to be granted the patent,

and, if the applicant fails to do so, the application is treated as having been abandoned.

(3) Where a person has been mentioned as a sole or joint inventor under this section, any other person who alleges that the former ought not to have been mentioned may at any time apply to the Registrar for a certificate to that effect, and the Registrar may issue such a certificate.

Determination of right to patent after grant

47.—(1) After a patent has been granted for an invention, any person having or claiming a proprietary interest in or under the patent may refer to the Registrar the question —

(a) who is or are the true proprietor or proprietors of the patent;

- (b) whether the patent should have been granted to the person or persons to whom it was granted; or
- (c) whether any right in or under the patent should be transferred or granted to any other person or persons,

and the Registrar must determine the question and make such order as the Registrar thinks fit to give effect to the determination.

- (2) Without limiting subsection (1), an order under that subsection may contain provision
 - (a) directing that the person by whom the reference is made under that subsection is included (whether or not to the exclusion of any other person) among the persons registered as proprietors of the patent;
 - (b) directing the registration of a transaction, instrument or event by virtue of which that person has acquired any right in or under the patent;
 - (c) granting any licence or other right in or under the patent; and
 - (d) directing the proprietor of the patent or any person having any right in or under the patent to do anything specified in the order as necessary to carry out the other provisions of the order.

(3) If any person to whom directions have been given (A) under subsection (2)(d) fails to do anything necessary for carrying out any such directions within 14 days after the date of the order containing the directions, the Registrar may, on an application made to the Registrar by any person in whose favour or on whose reference the order containing the directions was made (B), authorise B to do that thing on behalf of A.

(4) Where the Registrar finds on a reference under this section that the patent was granted to a person not entitled to be granted that patent (either alone or with other persons) and on an application made under section 80 makes an order on that ground for the conditional or unconditional revocation of the patent, the Registrar may order that the person by whom the application was made or that person's successor in title may, subject to section 84, make a new application for a patent —

- (*a*) in the case of unconditional revocation, for the whole of the matter comprised in the specification of that patent; and
- (c) in the case of conditional revocation, for the matter which in the opinion of the Registrar should be excluded from that specification by amendment under section 83,

and where such a new application is made, it is treated as having been filed on the date of filing the application for the patent to which the reference relates.

- (5) On any reference under subsection (1)
 - (a) no order may be made under this section transferring the patent to which the reference relates on the ground that the patent was granted to a person not so entitled; and

(b) no order may be made under subsection (4) on that ground if the reference was made after the end of the period of 2 years beginning with the date of the grant, unless it is shown that any person registered as a proprietor of the patent knew at the time of the grant or, as the case may be, of the transfer of the patent to the person that the person was not entitled (either alone or with other persons, as the case may be) to the patent.

(6) An order under this section must not be so made as to affect the mutual rights or obligations of trustees or of the personal representatives of a deceased person, or their rights or obligations as such.

(7) Where a question is referred to the Registrar under this section, an order must not be made by virtue of subsection (2) or under subsection (4) on the reference unless notice of the reference is given to all persons registered as proprietor of the patent or as having a right in or under the patent, except those who are parties to the reference.

(8) If it appears to the Registrar on a reference under this section that the question referred to the Registrar would be more conveniently dealt with by the court, the Registrar may decline to deal with it and, without prejudice to the court's jurisdiction to determine any such question and make a declaration, the court has jurisdiction to do so.

(9) The court must not determine a question whether a patent was granted to a person not entitled to be granted the patent -

- (a) in the exercise of any such declaratory jurisdiction in an action for a declaration; or
- (b) in the exercise of jurisdiction pursuant to a reference under this section,

if the action or the reference (as the case may be) was commenced or made after the end of the period of 2 years beginning with the date of the grant of the patent, unless it is shown that any person registered as a proprietor of the patent knew at the time of the grant or, as the case may be, of the transfer of the patent to the person that the person was not entitled (either alone or with other persons, as the case may be) to the patent.

Effect of transfer of patent under section 47

48.—(1) Where an order is made under section 47 that a patent be transferred from any person or persons (the old proprietor or proprietors) to one or more persons (whether or not including an old proprietor) then, except in a case falling within subsection (2), any licences or other rights granted or created by the old proprietor or proprietors are, subject to section 43 and to the provisions of the order, to continue in force and to be treated as granted by the person or persons to whom the patent is ordered to be transferred (the new proprietor or proprietors).

(2) Where an order is so made that a patent be transferred from the old proprietor or proprietors to one or more persons none of whom was an old proprietor (on the ground that the patent was granted to a person not entitled to be granted the patent), any licences or other rights in or under the patent, subject to the provisions of the order and subsection (3), lapse on the registration of that person or those persons as the new proprietor or proprietors of the patent.

(3) Where an order is so made that —

- (a) a patent be transferred as mentioned in subsection (2); or
- (b) a person other than an old proprietor may make a new application for a patent,

and before the reference of the question under that section resulting in the making of any such order is registered, the old proprietor or proprietors or a licensee of the patent, acting in good faith —

- (c) worked the invention in question in Singapore; or
- (d) made effective and serious preparations to do so,

the old proprietor or proprietors or the licensee shall, on making a request to the new proprietor or proprietors within the prescribed period, be entitled to be granted a licence (but not an exclusive licence) to continue working or, as the case may be, to work the invention, so far as it is the subject of the new application.

(4) Any such licence must be granted for a reasonable period and on reasonable terms.

(5) The new proprietor or proprietors of the patent or any person claiming that the person is entitled to be granted any such licence may refer to the Registrar the question whether that person is so entitled and whether any such period is or terms are reasonable.

(6) The Registrar must determine the question mentioned in subsection (5) and may, if he or she considers it appropriate, order the grant of such a licence.