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Review of the *Biodiscovery Act 2004* (Qld)  
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**Submission to the Review of the *Biodiscovery Act 2004* (Qld)  
by**

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To whom it may concern:

Thank you for advertising a review of the *Biodiscovery Act 2004* (Qld) (the Act) and inviting submissions to inform the Act's purpose and operation.

This submission seeks to address the Terms of Reference, and in particular the purpose of the Act in relation to:

- b. consideration of developments internationally and nationally in relation to the implementation of the Nagoya Protocol and Australia's Biodiversity Conservation Strategy (ABCS) since the commencement of the Act and alignment with and any impact on its application, and*
- c. examination of developments in native title law, traditional knowledge and changes to IP law that may affect ownership of genetic resources.*

**Previous Review**

We note that the previous review (2009/10) recommended the Act not be amended to afford legislative protection of traditional Indigenous knowledge and that, instead, implementation of an international regime on access and benefit sharing arrangements be closely monitored.

That Review recommended *"that the State monitor the movement towards the development of a legal framework implemented to protect traditional and Indigenous knowledge in Australia to determine whether any consequential amendments to the Act are required at that time."*

The review report further supported:

- *"The government notes the move towards an international regime on access and benefit sharing from genetic resources and the legislative protection of traditional Indigenous knowledge.*
- *The Queensland Biotechnology Code of Ethics (the Code) reflects the government's policy in this area. The Code states 'where in the course of biodiscovery we (the entity) obtain and use traditional knowledge from Indigenous persons, we will negotiate reasonable benefit sharing arrangements with these persons or communities'.*

- *Any legislation dealing with the protection of traditional Indigenous knowledge will be a matter for the Commonwealth, as the Commonwealth has Constitutional responsibility for intellectual property laws. Should legislation dealing with traditional Indigenous knowledge be developed, the government will examine its impact on the Act to determine whether legislative change is required."*

Consequently there is no reference to or protection of Indigenous Traditional Knowledge in the Act.

With respect, that Review provided scant consideration of these issues, dismissing them as a national responsibility to keep a watching brief on and suggesting a code of ethics was sufficient to compel bioprospectors to determine what is traditional knowledge and, after the fact, engage with the owner of that knowledge. Frankly, that Review appears to have simply shifted these issues, along with significant potential opportunities for the State and Queensland's Indigenous peoples, to the too hard basket, undermining the very purpose of the Act. Further, it failed to address Queensland's own obligations to address international agreements under which biodiversity and biodiscovery policy is framed.

If the Act seeks to provide for streamlined and sustainable access to the State's native biological resources for the purposes of biodiscovery whilst returning a fair and equitable benefit to the State for the benefit of all Queenslanders, then failure to address Indigenous traditional knowledge and, in particular, the property of biological resources on State lands where native title exists or has yet to be determined, does not meet the purpose for either a streamlined and sustainable approach or fair and equitable benefit of **all** Queenslanders.

Although in each of the consultation forums there appeared to be a 'representative' of Aboriginal interests, the previous Review failed to adequately consult with Traditional Owners actually involved in bioprospecting activities, who had been subject of biopiracy<sup>1</sup> or who wished to pursue opportunities for the development of medicinal, cosmetic or other products through benefit sharing arrangements.

This submission seeks to address these deficiencies, and to advocate for a progressive policy framework that addresses, challenges and encourages the sharing of traditional knowledge towards viable and productive research partnerships and the consequential development of products and economic opportunities for Queensland and Aboriginal communities.

### **Background: Guiding principles and protocols**

There are a number of declarations, protocols and conventions that advocate for the rights of Indigenous peoples in biodiscovery activities and, although currently poorly reflected in both Australian (the signatory to these agreements) and Queensland biodiversity and other legislation, require signatories and legislators to adopt these commitments. Some relevant extracts and their relevance to the Review of the Act are summarised below:

#### **Article 31 - UN Declaration on the Rights of Indigenous Peoples**

*"1. Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions.*

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<sup>1</sup> Misappropriation of traditional knowledge by unfair or illicit means, which may also include deriving commercial benefit from the acquisition or appropriation of traditional knowledge contrary to honest practices that gain inequitable benefit for Traditional Owners

2. In conjunction with indigenous peoples, States shall take effective measures to recognise and protect the exercise of these rights.”

Further information on the UN Declaration on the rights of Indigenous Peoples can be found at [www.un.org/esa/socdev/unpfii/documents/DRIPS\\_en.pdf](http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf).

Relevance to the Biodiscovery Act review: The issue raised in the 2009 Review of the Act - that legislation dealing with the protection of traditional Indigenous knowledge is a matter for the Commonwealth and that should legislation dealing with traditional Indigenous knowledge be developed, the government will examine its impact on the Act to determine whether legislative change is required - is an insufficient reason for not adopting measures to recognise and protect Indigenous rights in Queensland legislation. Indeed it did not limit the Northern Territory in 2006 from implementing the *Biological Resources Act 2006* which recognises the special knowledge held by Indigenous persons about biological resources in the Objects of that Act; covers multiple tenures including freehold land, Aboriginal land, Aboriginal community living areas, land subject to Native Title, crown land, lease land and Territory waters - and requires a bioprospector to make any necessary arrangements for access to the resource with the person who controls the resource. It also provides that the CEO issuing a permit must be satisfied that the resource access provider has given prior informed consent to the terms of the benefit sharing agreement, setting out a framework for considering whether this has been done adequately. It further requires the benefit sharing agreement to include, among other things:-

- a statement regarding any use of indigenous people's knowledge, including details of the source of the knowledge, such as, for example, whether the knowledge was obtained from the resource access provider or from other indigenous persons;
- a statement regarding benefits to be provided or any agreed commitments given in return for the use of the indigenous people's knowledge;
- the details of any proposals of the applicant to benefit biodiversity conservation in the area if access is granted;
- details of the benefits that the resource access provider will receive in return for the taking of the resources.

A Northern Territory guide for Aboriginal Knowledge holders on recording and commercialising Aboriginal Plant Knowledge has even been produced to facilitate engagement and involvement of Aboriginal people in the development of new products and enterprises (Aboriginal Bush Traders [http://www.aboriginalbushtraders.com/images/site-content/Know\\_your\\_rights%20\(3\).pdf](http://www.aboriginalbushtraders.com/images/site-content/Know_your_rights%20(3).pdf)).

Similarly, other jurisdictions have recognised the rights of Indigenous peoples in biodiscovery - such as the Philippines' bioprospecting policy framework, which, like Queensland, vests qualified ownership of flora and fauna in the State, but also recognises the UN Convention on Biodiversity, requiring a prior informed consent certificate in their permitting system.

A framework for recognising Indigenous Traditional Knowledge in the object of the *Biodiscovery Act 2004*, together with a framework for prior informed consent of the resource access provider to the terms of the benefit sharing agreement and consideration in the permitting system of the use of Indigenous peoples' knowledge, similar to provisions in the Northern Territory *Biological Resources Act 2006* is recommended.

### **Nagoya Protocol – Convention on Biological Diversity**

- Multilateral treaty (193 parties) including Australia
- Australia ratified CBD on 18 June 1993

There are three Nagoya Protocol objectives: the conservation of biological diversity; the sustainable use of its components, and; the fair and equitable sharing of the benefits arising from the use of genetic resources (matching the objectives of Queensland's Biodiscovery Act).

However, the supporting Global Agreement Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation sets out benefits to provide access, benefit sharing and certainty, that are not possible without a framework for engaging with Traditional Owners and recognition of biocultural diversity and traditional knowledge.

"Protocol Benefits:

- establishes a legally-binding framework helping researchers access genetic resources for biotechnology research, development and other activities, in return for a fair share of any benefits from their use. Providing R&D sector with the certainty needed for investment in biodiversity and biocultural diversity-based research."

Recognition of biocultural values in the object of the *Biodiscovery Act 2004* is recommended as a starting point for acknowledgement of traditional knowledge, and a foundation for a supporting legal framework.

### **Primary Substantive Rights - UN Human Rights Council: Twenty-first session\***

*"49. A better approach appreciates, first, that neither consultation nor consent is an end in itself, nor are consultation and consent stand-alone rights. As instructed by the Inter- American Court of Human Rights in **Saramaka v. Suriname**, principles of consultation and consent together constitute a special standard that safeguards and functions as a means for the exercise of indigenous peoples' substantive rights. It is a standard that supplements and helps effectuate substantive rights, including the right to property, which was the focus of the Court's judgment in that case, and other rights that may be implicated in natural resource development and extraction.*

*50. The primary substantive rights of indigenous peoples that may be implicated in natural resource development and extraction, as has been extensively documented include, in particular, rights to property, culture, religion, and non-discrimination in relation to lands, territories and natural resources, including sacred places and objects; rights to health and physical well-being in relation to a clean and healthy environment; and rights to set and pursue their own priorities for development, including development of natural resources, as part of their fundamental right to self-determination. These rights are grounded in multiple international instruments, including binding multilateral human rights treaties that have been widely ratified, and are articulated in the United Nations Declaration on the Rights of Indigenous Peoples."*

Relevance to the Biodiscovery Act review: A transparent Nagoya Protocol access system for Indigenous peoples' genetic resources and property rights is through **primary substantive rights**. The Biodiscovery Act **must establish rules that genetic resources and associated traditional knowledge used in their jurisdiction have been acquired legally and appropriately.**

In a supporting framework, underpinned by recognition and rules in the Act, a **potential primary substantive rights systems approach could include:**

- Indigenous spatial identities (clan and clan family cultural mapping)
- Customary governance and decision-making underpinning genetic resources
- Land Use and Occupancy Mapping of genetic resources at relevant customary landscape scales regarding "relationships with a resource" and "control over access to a resource"
- Documentation of genetic resource data within an Indigenous intellectual property framework
- Customary permit system established as part of the Act's permit approach through a 'competent authority' authorised to make decisions on access enabling researchers to demonstrate compliance with access rules (similar to the Northern Territory Act outlined above).

Australia can only ratify the Protocol when it is confident that all obligations are being met – this requires changes to domestic law, the place where such activities are authorised.

Further information on the Twenty-first Session of the UN Human Rights Council Report of the Special Rapporteur on the rights of Indigenous peoples can be found at [http://www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session21/A-HRC-21-47\\_en.pdf](http://www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session21/A-HRC-21-47_en.pdf).

The importance of Indigenous spatial data to this type of systems approach is in line with Australian spatial approaches and value of spatial information and its impact on the Australian economy. A paper prepared for the CRC for Spatial Information & ANZLIC – the Spatial Information Council highlights some key interconnecting and relevant points.

Considerable work has been done in Cape York on the use of spatial tools for clan and clan family cultural mapping. The focus on the use of Indigenous spatial intelligence and Indigenous intellectual property knowledge regarding bioprospecting resources and the Queensland economy, will add to geospatial approaches including:

- Mapping of culturally significant genetic resources and their habitats at a smaller scale
- Progress in recent spatial technologies now allows transformation of this type of cultural data into meaningful information in terms of habitat mapping and biodiversity surveys.
- Indigenous knowledge in this space provides investigation into the importance of this cultural genetic knowledge, the extent to which food and medicine is applied to flora in distinct cultural landscape scales and their potential to the Queensland and global economy in terms of food therapies, complimentary medicines, pharmaceuticals, and green chemistry.
- Defining both the range of biodiversity and biocultural diversity hotspots provides a strength-based platform for the state's bioregional management planning in terms of future economic planning regarding biodiscovery.

Further information on the impact of spatial information technologies on the Australian economy can be found at: [http://www.acilallen.com.au/cms\\_files/ACIL\\_spatial%20information\\_tasmania.pdf](http://www.acilallen.com.au/cms_files/ACIL_spatial%20information_tasmania.pdf)

### **World Health Organisation**

- *70-80% world's indigenous peoples used plant based traditional medicines for health care purposes (5 billion of world's 7.2 billion people)*

*Medium-Term Programme For Development Of Traditional Medicine, Nepal [Assignment Report: 9 – 24 September 1997, Dr P.N.V Kurup WHO Short-term Consultant]*

*WHO Project: NEP DAP 021...purpose 1. Review the situation with regard to traditional medicine (TRM) in order to formulate a medium-term programme for its development and strengthening; 3. Identify the strengths and weaknesses of the TRM programme and recommend ways to improve its development*

- *Government Policy – Nepal Government recognised traditional systems of medicine, also published a national Ayurveda health policy (1996)*
- *Policy envisages development of Ayurvedic medicine by increasing manpower; providing training programmes; Bachelor, Master and Ph.D. level training facilities in Ayurveda; development of medical plant resources; pharmaceutical industry; Ayurveda hospitals, zonal, district and village level Ayurveda health centres/dispensaries*

Relevance to the Biodiscovery Act review: there is significant potential for biotechnology research, innovation and economic development from an inclusive legal framework that recognises and protects traditional knowledge. There is a case for achieving broader quadruple-bottom line

approaches, through the establishment of facilities, programs and a legal, policy and procedural framework in partnership with Traditional Owners, universities, the biotechnology/pharmaceutical industries and government. Examples may include:

- TIEC (ATH) JCU Cairns: expansion of ethnobotany services to include development and preservation of medicinal plants resources at clan and clan family levels (future potential moving toward customary cooperatives for cultivation, collection, preservation and supply of medicinal plants)
- Cairns based full-fledged clinical research unit with modern parameters in the hospital to establish the efficacy of traditional medicine (TRM) treatment
- Direct relationship between TIEC & Clinical research teams in ongoing and finalising of traditional medicinal drugs lists utilising ISI technology approaches as well

### **Deficiencies in intellectual property and patent law**

While traditional knowledge is vested in the holder of that knowledge, its potential for broader application to the development of food and beverages, nutritional supplements, therapeutic goods and medicines, cosmetics and other products is enormous, as are the risks of biopiracy and the benefits of sharing such knowledge being limited in legislation to those with the capacity to exploit the knowledge. Indeed a gap in the Nagoya Protocol is that it is silent on IP and allows for the exploitation of traditional knowledge by innovations registered through the patent system<sup>2</sup>.

Intellectual property, copyright and patent law fails to adequately represent the ways in which traditional knowledge is 'owned', recorded and/or shared and is deficient in protecting the confidentiality of information shared. Neither does it set out how research will proceed, who will 'own' the IP of the research nor how the results can be patented when traditional knowledge is involved. It is recognised that international IP, copyright and patent law is outside the purview of Queensland. Consequently, to protect the interests of Queensland's Traditional Owners, a state based, legislated biodiscovery framework that recognises traditional knowledge and requires prior informed consent is essential, with supporting instruments to address deficiencies and facilitate information sharing, such as:

- Establishment of a traditional knowledge database as a protective measure to ensure others cannot, without consent, obtain patents based on custodial knowledge (this could be incorporated into the Cultural Heritage database)
- Development of Biodiscovery community protocols to guide prior informed consent and facilitate involvement of Traditional Owners with bioprospecting entities. This approach could use the NICA (National Indigenous Cultural Authority) model defined by Indigenous IP lawyer Terri Janke. Further information can be found in "Beyond Guarding Ground: A vision for a National Indigenous Cultural Authority" at [www.terrijanke.com.au](http://www.terrijanke.com.au)
- Reform of related Acts such as the Cultural Heritage Act, Cape York Peninsula Heritage Act and Aboriginal Land Act to include provisions for protection of the 'bio-cultural' rights of Indigenous peoples.

Waiting for the Australian government (or for that matter the governments of other countries) to resolve complex issues related to intellectual property, copyright and patent law renders any progress on this matter impotent for generations to come, and severely limits the potential for the development of economic opportunities for both Indigenous communities and emerging businesses to develop and market new products based on traditional knowledge that exists now.

There is a propensity for policy-makers to perpetuate the 'traditional knowledge' and 'modern/scientific knowledge' dualism, whereas it is more useful to focus on Indigenous peoples'

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<sup>2</sup> Robinson, D.F. (2010) Biopiracy and the Innovations of Indigenous Peoples and Local Communities in Drahos, P. and S. Frankel. (eds) *Indigenous Peoples' Innovation Intellectual Property Pathways to Development*, Canberra: ANU Press.

innovations, and their contributions to innovation, which is described in Article 8(j) of the Convention on Biological Diversity (Robinson 2010).

### **Case study example - Chuulangun Aboriginal Corporation**

The following case study demonstrates current commercial and research outcomes that support the approaches outlined in this submission. Examination of the partnership approaches, customary relationships, treatment of IP, joint patents and access control mechanisms provide guidance for a progressive biodiscovery framework for Queensland, and highlight the potential for expanded biotechnology enterprise through an inclusive approach with traditional owners. The project also serves as a model for equitable partnerships between Indigenous and Western scientific researchers in the investigation of traditional medicinal plant knowledge (further information on this project and on Indigenous Peoples' Innovation<sup>3</sup> can be found at <http://press.anu.edu.au/apps/bookworm/view/Indigenous+Peoples%e2%80%99+Innovation:+Intellectual+Property+Pathways+to+Development/9731/cover.html> )

Direct Quotes from:

David J. Claudie; Susan J. Semple; Nicholas M. Smith; and Bradley S. Simpson (2012) Ancient but new. Developing locally-driven enterprises based on traditional medicines in “Kuuku l’yu” (Northern Kaanju homelands, Cape York, Queensland, Australia in Drahos, P. and S. Frankel, *Indigenous Peoples' Innovation: Intellectual Property Pathways to Development*, Canberra: ANU Press.

*Chuulangun Aboriginal Corporation initiated the Kuuku l’yu Northern Kaanju Traditional Medicines project with University-based scientists in ethnopharmacology and ethnobotany in order to facilitate research on homelands with and by Indigenous people. The research, which aims to identify plant species with potential to develop as plant-based medicinal products, is locally initiated and driven by Kuuku l’yu traditional custodians. The project forms part of traditional custodians’ own planning for sustainable natural resources management and development. The research group comprising Indigenous and western scientists is working towards the development of homeland-based businesses around medicinal plants, models for protection of Indigenous cultural and intellectual property and support for traditional owners in the intergenerational transfer of traditional knowledge.*

*While benefit-sharing agreements are certainly a step in the right direction with regard to such projects, we argue that there is a need to further develop models of research on medicinal plants that are locally initiated and driven by Indigenous people as part of their own planning for sustainable natural resources management and economic development. Furthermore Indigenous people need to have the rights and legal mechanisms to protect their own cultural and intellectual property.*

*Prior to commencement of the project, participants established ways of working together which included the key issues of how Kuuku l’yu traditional knowledge about plants should be used and how this cultural and intellectual property (IP) should be protected.*

*A summary of some of the key aspects of this negotiated collaborative agreement between the Chuulangun Aboriginal Corporation and the University of South Australia is given below.*

- *Recognition of the values of traditional knowledge is central to the research project*
- *Kuuku l’yu people’s participation will bring valuable IP into the project in the form of traditional knowledge about plants of cultural significance. This background IP remains in the ownership of traditional owners and is fully acknowledged in the allocation of any new IP generated through the project.*
- *Cultural and intellectual property of traditional owners is treated as confidential information that will not be disclosed to any third party.*

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<sup>3</sup> Indigenous innovation is often cosmologically linked to land and an indigenous group’s relationship with that land, rather than to laboratories

- *Indigenous Law and Custom govern how background IP will be used during the course of the project.*
- *Traditional owners will undertake plant collections for the project in accordance with the rights of certain people to prepare medicines under customary law.*
- *New IP developed through the project (such as findings of laboratory-based testing and chemical analysis) is jointly and equally owned by Chuulangun Aboriginal Corporation and the University of SA*
- *Decisions to commercialise any aspects of project IP will require the consent of both parties. Both parties will work together in making decisions about the processes of any commercialisation.*
- *There will be an emphasis on joint publication of research findings by both University-based and Kaanju researchers contributing to relevant aspects of the work.*

*This project has not only had the important aim of identifying plant species with potential for development as plant-based products that can support homelands-based development, but also the implementation of collegial partnerships in applied research as associate expert investigators studying the chemistry and biological activities of plants, through isolation and identification of rare properties in flora used by Kuuku l'yu Northern Kaanju people. A number of the plant species chosen for testing by the research group have demonstrated activities in laboratory-based testing which reflect the traditional understandings of the actions and significance of these plants. These serve as examples that marry both Western science and Australian Indigenous science/culture to show that the two disciplines have come to the same finding.*

*The investigation of the plant species Uncha (Western scientific name: Dodonaea polyandra) is an example case heading to commercialisation and ongoing learning experience for the research group. It is a plant species with medicinal use by particular Kuuku l'yu Northern Kaanju traditional owners and knowledge about the plant is passed through the patrilineal bloodline. The plant is used traditionally to decrease pain and discomfort in the mouth from toothache and infection.*

*Chuulangun Aboriginal Corporation and the University of South Australia have filed two provisional patent applications patenting the project intellectual property related to the findings on the Uncha plant. The group are also exploring the use of trademarks to identify extracts as those belonging to the Chuulangun Aboriginal Corporation and sourced appropriately from the Kuuku Iluk Northern Kaanju Homelands. Further information on the patent can be found at:  
[www.itek.com.au/portfolio.raw?task=callelement&item\\_id=145&element=05fc8d07-e697-4be7-a9c7-022874e004c4&method=download](http://www.itek.com.au/portfolio.raw?task=callelement&item_id=145&element=05fc8d07-e697-4be7-a9c7-022874e004c4&method=download) .*

*The patent process as it stands is far from ideal. Patents do not allow “ancestors” or whole clan groups to be named – only “inventors” according to a narrow definition. The current patent system places too much emphasis on the value of the novel and inventive steps from a Western scientific perspective and inventors are defined from this perspective. The limited time-frame of protection is also problematic for traditional custodians who have held their knowledge over generations. If Indigenous peoples are to protect their sciences including medicines as stated in the UN Declaration on the Rights of Indigenous Peoples there is a need to develop new legal mechanisms to allow them to do this “from their side”.*

### **Summary - a case for changes to the Act**

There are significant benefits to be derived for Queensland, biotechnology enterprises and Traditional Owners through appropriate recognition and sharing of traditional knowledge. Other jurisdictions, like the Northern Territory, have recognised this not only in the Object of their bioprospecting legislation, but by requiring informed prior consent to benefit sharing agreements and ensuring that appropriate engagement and benefit sharing is reflected in those agreements.

The economic, skills development and job creation opportunities that could flow for Aboriginal people from sharing of traditional knowledge - through partnership arrangements with universities and biodiscovery entities, in the propagation, harvesting and extraction of compounds, and in the development of community capacity and skills, presents a compelling argument for ensuring traditional knowledge is recognised and protected in the Biodiscovery Act.

The current Act is narrow, fails to meet obligations under the Convention on Biological Diversity (and other protocols) and limits opportunities for the economic development of Indigenous communities, to the detriment of both those communities and biotechnological advances in Queensland.

The focus of the current Act may be on facilitating bioprospecting and attracting investment whilst ensuring benefits for the State, but in its current form it provides no incentive for sharing - indeed even acts as a deterrent to sharing - the commercially important knowledge of Traditional Owners that has been developed and used over thousands of years.

Queensland's Aboriginal communities have unemployment statistics upwards of 75%. Queensland Biodiscovery legislation could, properly drafted and implemented, provide a vehicle for community development, jobs and self determination, whilst at the same time enabling commercially beneficial biotechnology innovations and products.

As demonstrated by the case study, there is work going on in this space in Queensland, with potential for significantly more under the right legislative framework where trust and capacity can be developed.

Appropriate and legislatively supported recognition and engagement with Indigenous communities is necessary to ensure trust, to build capacity and to unleash the real potential for biodiscovery in Queensland. A contemporary Biodiscovery Act in Queensland can no longer ignore this potential, nor neglect the international, national and ethical responsibilities to embrace the rights of Queensland's original ethnobotanists.

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The authors of this submission are available to discuss its contents, and other issues relating to the engagement of Indigenous peoples in bioprospecting.

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