

## Impact case study (REF3)

<b>Institution:</b> University of Aberdeen		
<b>Unit of Assessment:</b> 18 (Law)		
<b>Title of case study:</b> Embedding intellectual property rights in the UN Marine Biodiversity Beyond National Jurisdiction Process		
<b>Period when the underpinning research was undertaken:</b> 2012-2020		
<b>Details of staff conducting the underpinning research from the submitting unit:</b>		
<b>Name(s):</b>	<b>Role(s) (e.g. job title):</b>	<b>Period(s) employed by submitting HEI:</b>
Abbe Brown Marcel Jaspars	Professor in Intellectual Property Law Professor in Chemistry	2012-current 1995-current
<b>Period when the claimed impact occurred:</b> 2018-2020		
<b>Is this case study continued from a case study submitted in 2014?</b> N		
<b>1. Summary of the impact</b> (indicative maximum 100 words)		
<p>Innovative multi-disciplinary research by Professor Abbe Brown (Law) in collaboration with Professor Marcel Jaspars (Chemistry) has embedded consideration of intellectual property (IP) rights in the negotiation process of an emerging new United Nations (UN) legal agreement, regarding the two thirds of the ocean, which is beyond the control of states.</p> <p>Problems can arise in relation to marine genetic resources (MGR) and technology transfer. Prior to the involvement of Brown and Jaspars, negotiators had limited understanding of the challenges and opportunities that different approaches to IP could generate to delivering provisions in the agreement relating to MGR and to technology transfer. Brown and Jaspars have raised awareness through active engagement including a policy brief and contributing to commentary on the draft agreement. They have increased understanding amongst negotiators and wider publics of what is a fundamental issue in the management of the world's oceans.</p>		
<b>2. Underpinning research</b> (indicative maximum 500 words)		
<p>Two-thirds of the world's ocean lies in areas beyond national jurisdiction (ABNJ). These areas are home to unique species and delicate ecosystems and the degradation of these threatens marine genetic resources (MGR). Current, fragmented international legal frameworks leave biodiversity in ABNJ highly vulnerable and uncertain. There is considerable tension relating to how states should balance the drive for MGR based research, which can bring about economic and medical advancement, with impact on the environment and the sharing of benefits (including financial) which arise.</p> <p>To address this governance gap, negotiations are currently underway to create a new international instrument under the UN Convention on the Law of the Sea (ratified in 1982), which will provide a global framework for the ABNJ. This Biodiversity Beyond National Jurisdiction process (BBNJ), seeks to facilitate inclusive scientific research, to enable equitable sharing of benefits from MGR and to enhance technology transfer. However, a potential barrier to the delivery of equitable sharing and to technology transfer is intellectual property (IP). IP confers power on private actors (not states) and could lead to a monopoly being held by a commercial interest over the results of innovation, and in some cases over the MGR and information about them. If the BBNJ negotiations do not engage appropriately with IP, then the practical delivery of the final agreement and its wider benefit for health and science, could be blocked by IP owners.</p> <p>Early stages of the BBNJ process demonstrated a limited understanding of the impact of IP rights amongst the negotiators and others involved. Professors Brown and Jaspars have sought to address this by bringing together their globally recognised expertise in IP rights and its intersection with other fields (Brown) and in marine biodiscovery (Jaspars). Through building a detailed understanding of the scientific aims of the BBNJ process, they have identified the need for strategies to prevent IP frustrating the sharing of benefits accruing from information and technology transfer. Brown and Jaspars raised awareness of this problem and developed solutions that could be included in the BBNJ agreement. These seek not to change IP law, but rather engage with opportunities which exist within IP law for states to introduce some permitted exceptions and require sharing (of resource) [5]. Brown and Jaspars shaped a new ecosystem-focused approach to IP that would restrict the ability of IP owners to control the activity of others in some cases, and would encourage inclusive innovation through open sharing of the results of</p>		

research cruises used to collect and analyse MGR. Their proposals also encouraged a pragmatic approach to tracing the use of MGR and developed new strategies to facilitate the development and to share the benefits of ecologically sustainable technologies [5].

Brown has an international reputation exploring the intersections and conflicts between IP rights, which reward and share the benefits of innovation, and other regimes which seek to address societal challenges more directly. She illuminates the tensions between the legal structures in these different regimes, and the potential for private IP rights to restrict the steps, which states can take to respond to health and climate change challenges through technology. In turn, she has created frameworks for this to be managed by crossing barriers between fields, including in developing economies [2,3] and by learning from different forms of regulation [1]. This expertise maps directly on to the opportunities identified in the BBNJ process. As a former chair and member of multiple legal and policy committees exploring the role and impact of IP and other regimes (including Privacy Advisory Committee of the National Services Scotland (2013-15), Public Benefit and Privacy Panel for Health and Social Care of NHS Scotland (since 2015), TSB Director's Ad Hoc Group on Intellectual Property Rights of the International Telecommunication Union (2010-2013), Committee of the Licensing Executive Society (Scotland) (2008-2015)) and being a former IP litigator with 10 years' experience, Brown's research expertise is underpinned by extensive policy and commercial know-how.

Jaspars has an international reputation as a scientist, an entrepreneur and as a policy influencer. He has been closely involved in the BBNJ process since its start in 2015 working alongside Intergovernmental Organisations (IGOs), Nongovernmental Organisations (NGOs), and the European Commission. In particular, he was Scientific Project Leader of the EU FP7 Project 'PharmaSea', which explored how to make the use of marine microbial derived compounds a more attractive proposition to the pharmaceutical industry [P3]. Jaspars was also part of the team that developed the concept of '*Mare Geneticum*', a means of bringing about a fair and effective regime for benefit-sharing of MGR in the BBNJ based on better cooperation, coordination and sharing of research, results and results and financial benefits [4]. From these bases, Brown and Jaspars have worked together to develop their innovative multi-disciplinary approach and to present the suggested solutions noted above (e.g. inclusive innovation; [5]).

In order to disseminate these solutions and to enhance awareness of the need to engage with IP, in 2018 Brown and Jaspars held an event in Aberdeen with negotiators and others involved in the BBNJ process in advance of its first intergovernmental conference (IGC). In 2019, Brown and Jaspars attended the second and third IGCs events at the United Nations in New York and held accredited side events in collaboration with an IGO and NGO. In 2020 funding was obtained from the Royal Society of Edinburgh [P1] to undertake engagement activities with negotiators and others involved in the BBNJ process and with wider publics (in Edinburgh). Funding was obtained from the Wellcome Trust [P2] to support the creation of online content (podcasts, online explainer videos) and engagement activities (a musical composition and performance) to promote the reasoning behind their ideas and the means by which they can be used by government and business as well as by wider publics to understand the role of IP in benefit sharing of MGR and in technology transfer.

### 3. References to the research (indicative maximum of six references)

#### References:

- [1] **Brown, A.** (2014) 'Lessons from Technology and Intellectual Property in the Oil and Gas Industry in Scotland: a Scholarly Journey and an Empirical Review'. *SCRIPT-ed*, vol 11, no. 1, pp. 9-37
- [2] **Brown, A.** (2014) 'Knowledge Management and Access to Essential Technologies' in D Gervais (ed.), *Intellectual Property, Trade and Development: Strategies to Optimize Economic Development in a TRIPS-PLUS Era*. 2 edn, Oxford University Press, Oxford, pp. 115-138
- [3] **Brown, A** (2019) *Intellectual Property, Climate Change and Technology: Managing National Legal Intersections, Relationships and Conflicts* (Edward Elgar)

[4] Broggiato, A; Vanagt, T; Lallier, LE; **Jaspars, M**; Burton, G; Muyldermans, D, '*Mare Geneticum: Balancing Governance of Marine Genetic Resources in International Waters*', *International Journal of Marine and Coastal Law* 2018, **33**, 3-33

[5] **Jaspars, M. and Brown, A.** 'Benefit sharing: combining intellectual property, trade secrets, science and an ecosystem-focussed approach' in Long, R. et al *Biodiversity Beyond National Jurisdiction: Intractable Challenges & Potential Solutions* (Brill, 2020) and shared as working paper

### Grants

[P1] **Jaspars** 'Towards delivering a pragmatic solution: benefit sharing and marine genetic resources beyond national jurisdiction within an international agreement being negotiated under the United Nations Convention on the Law of the Sea' Royal Society of Edinburgh, (Nov 2019 Jan 2020; GBP3,000 and support in kind) (Edinburgh)

[P2] **Brown** 'Sharing the benefits of the ocean: why, how, who' University of Aberdeen ISSF (Wellcome Trust, via University of Aberdeen Institutional Strategic Support Fund), (22 Nov 2019-31 Dec 2020; GBP9,035)

[P3] **Jaspars** 'PharmaSea' EU FP7 consortium, (1 Oct 2012-30 Sep 2016; GBP600,926)

## 4. Details of the impact (indicative maximum 750 words)

### Overview

The combined expertise, activity and influence of Brown and Jaspars regarding IP and science has changed the negotiating landscape of the emerging BBNJ agreement and has led to IP being embedded in the BBNJ process and new approaches to it being put forward. This is a landmark change in that IP has now become a stable, if still contested, part of the dialogue. Brown and Jaspars achieved this through sharing their ideas at events hosted at the UN and elsewhere, and contributing directly to commentary as authors (link to commentary: <https://bit.ly/3st1gxp>) on the evolving agreement as part of the delegations of the International Union for Conservation of Nature (IUCN). Their contributions have informed delegates, negotiators, IGOs, NGOs, and industry experts about the problems as well as opportunities, which can arise from IP rights. They have further entrenched the place of IP in the BBNJ process by developing possible solutions, which are effective and viable within the confines of international IP law, scientific practice and needs, and the realities of the negotiation of international agreements. Brown and Jaspars' public engagement activities have provided a complementary form of pressure on BBNJ negotiators and others involved in the BBNJ process regarding the importance of engaging with IP.

### Identifying issues and providing solutions

Prior to Brown's involvement from late 2018, BBNJ documents did not focus on the high-level question of how to engage with IP. The formal document considered at IGC 2 and the draft agreement considered at IGC3 (A/CONF.232.2019/6, link: <https://bit.ly/3bySTJG>) do now include suggested text relating to the grant of patents, disclosure of origin in relation to patent applications and benefit sharing, the relationship with IP agreements and some limited references regarding technology transfer. Brown and Jaspars identified additional issues, which warranted consideration, notably the prospect of databases, innovation building on MGR and marine technology being developed by and under the control of private sector IP owners. This ultimately can limit access to and sharing of MGR, and of information and benefits arising - even if the BBNJ agreement attempts to address this through referring to open access and open source approaches.

Most of the BBNJ delegates, policy makers, advisers and activist groups involved in and assisting the BBNJ process are experts in marine biodiversity, international law, environmental protection and science, rather than IP. There are a small number of private sector actors involved, and negotiators from some states, who have a deep respect for IP and a strong resistance to fettering its power. There is also a perception by some that any relevant IP issues are being dealt with elsewhere [S1]. This combination of limited awareness and unwillingness led to a lack of engagement on the part of most states with the full range of IP issues identified by Brown and Jaspars above as relevant to the BBNJ process.

Brown's input has demonstrated the lack of focus in other fora – including the World Intellectual Property Organisation and the World Trade Organization – on IP and MGR within ABNJ and has emphasised the need for the BBNJ process to find its own solutions to its IP problems. Brown and Jaspars developed solutions for inclusion in the BBNJ agreement limiting the power to prevent activity of others held by IP owners, notably in relation to research and sharing of databases. This would result in BBNJ goals being delivered in a manner, which is consistent with international IP treaties.

### **Mainstreaming IP**

Brown and Jaspars, working in collaboration with organisations including the Deep Sea Ocean Initiative (DOSI) and the IUCN, delivered a structured and interactive programme of briefings and events to embed a new awareness of IP and possible approaches to it. Brown's contribution began when Jaspars hosted a workshop with DOSI in June 2018 in Aberdeen [S2] with the aim of building bridges between experts, academics and country representatives in seeking a pragmatic solution to access and benefit sharing in respect of MGR in the BBNJ drawing on the ideas set out in *Mare Geneticum*. The event was attended by 17 delegates, including representatives of the permanent UN missions of Algeria, Belize, Egypt (representing the African Group, acted as Facilitator for MGR and as part of G77/China) and New Zealand; members of the IUCN; the Facilitator of the MGR negotiations; UK Maritime Policy Unit, Foreign and Commonwealth Office; the Office of Ocean and Polar Affairs, United States Department of State and EU representatives. During the workshop, discussions relating to the challenges which arose from IP and lack of engagement with it in the BBNJ process became evident and Brown argued for this to be addressed [S2].

As noted, Brown and Jaspars then attended IGC2 and 3 and in collaboration with both IUCN and DOSI, they coordinated formal accredited side events. Such events take place in parallel streams when the main negotiations are not taking place, and are an opportunity for informal and interactive discussion. The event at IGC2 'Mare Geneticum and an Ecosystem Approach: Power, Openness and Sharing' was attended around 15 people (country delegates and advisers), and a complementary podcast was provided in advance on the University of Aberdeen, BBNJ project website. Around 20 people participated in the event at IGC3 'Developing Mare Geneticum: notifying, sharing, rewarding and sustaining'. The IGC2 side event was referred to in the *Earth Negotiations Bulletin* published each day during the conference, and blog posts were shared after both events for wider engagement.

At IGC3 IP was much more visible than in the past and IUCN made a point of highlighting to IGOs and NGOs (such as UNESCO, Greenpeace - members of the High Seas Alliance) and negotiators (from countries of different levels of development and perspectives) that they had an IP lawyer in their delegation. The (then) Deputy Permanent Representative, Permanent Mission of Jamaica to the UN, in attendance at IGC3, has since said:

*I have found Abbe's work in the BBNJ process (individually and in conjunction with Marcel) in relation to IP to be invaluable in providing clarity on what is otherwise a very complex, divisive and sometimes controversial issue with which many negotiators are unfamiliar [S5].*

Brown also provided guidance to the rest of the IUCN delegation, country and other delegates about the importance of IP, including commenting on points made in the chamber, advising on the need for points to be raised by countries and the IUCN. She contributed to IUCN's formal written contributions on MGR submitted in August 2019 for IGC3 [S4i]. Brown also took a leading role in the IUCN contribution on MGR made in October 2020 to the online intersessional forum led by the President of the negotiations [S4ii] The (then) Senior Legal Officer of the IUCN has stated that:

*It is important to emphasize that IP was not initially part of the BBNJ discussions, and received very little attention in the preparatory committee process. The incorporation of IP in the current discussions in its current form can be attributed in significant part to Abbe's work [S4iii].*

The Facilitator of the MGR negotiations held an "informal informal" meeting (this is a key part of the formal negotiation process) specifically on the topic of IP rights during the IGC3. This was done after the IGC3 had begun and it is an indicator of the growing presence of the issue.



Estimated attendance was around 60. The Head of the Maritime Policy Unit in the UK Foreign and Commonwealth Office stated:

*Abbe's contribution has in my view led to IP being recognised as an important point in the BBNJ process. This can be seen from the inclusion in the two draft texts of increased references to IP, there being a special suggested clause regarding IP and some aspects of access and benefit sharing, the holding of an informal meeting on IP at IGC3 and increased interest from delegates about IP issues in corridor discussions and in one to one meetings. [S6].*

In January 2020, Brown and Jaspars coordinated a two-day informal workshop held at the Royal Society of Edinburgh, working again with DOSI [P1]. This was attended by 20 participants from country negotiators, IGOs, NGOs, industry and academics. In February 2020, Brown presented by invitation on IP and benefit sharing to the 'STRONG' High Seas Dialogue Workshop in Lima 2020 as part of the inter-ministerial National Dialogue organised by the Government of Peru to discuss the BBNJ process. This was attended by 58 people including academics, industry, NGOs in particular from Latin and Southern America and ministry representatives from Foreign and Environmental departments and including from Peru, Ecuador, Chile, Panama, Columbia [see S7]. In July 2020, Brown and Jaspars led the preparation of a DOSI policy brief to inform and stimulate discussion among delegates and the wider BBNJ community notably regarding the extent to which the restrictions on IP suggested above could bring about a stewardship approach to IP [S8i].

Brown and Jaspars complemented this by engaging with publics as voters, shareholders and activists. The January 2020 workshop in Edinburgh was accompanied by a sold-out public event with over 100 members of the public alongside workshop participants, jointly exploring the BBNJ process with a panel of experts from the Deep Ocean Stewardship Initiative, EU-Atlas and iAtlantic, France, and Greenpeace. The event involved an active question and answer session as well as discussion about how members of the public could get involved in campaigning and engaging with negotiators and their influencers, to protect the ocean and deliver an approach based on community and sharing, not private control [S8ii]. Co-lead of DOSI stated:

*Abbe's leadership, expert explanations and innovative ideas have been instrumental in enabling DOSI to engage scientists with the legal issues of IP and advocate for consideration of innovative approaches to address IP issues, based on Abbe's novel ideas for stewardship approaches to IP that promote science advancement and equity [S8iii].*

The event provided an opportunity to reach out to the wider public in new and novel ways and involved co-creation of the 'Song of the Oceans', with the internationally acclaimed poet, Dr Grahame Davies, and renowned composer Professor Paul Mealor. The video of the performance on the 'Sharing the Benefits of the Ocean' website, promotes Brown and Jaspars' work in relation to the BBNJ. The site provides introductions to marine biodiscovery and intellectual property, and on the relationship between them and the BBNJ. It is designed to be of use to all beneficiaries, including negotiators. Since its launch in January 2020, the video has been viewed over 500 times. The focus on working with the public has continued throughout 2020, notably with the launch of a new podcast for the University of Aberdeen's PodFest in May 2020 (112 listeners) [S9].

#### **5. Sources to corroborate the impact** (indicative maximum of 10 references)

- [S1] Algeria on behalf of African Group: Marine Resources – Informal Session, TreatyTracker.
- [S2] Workshop report (event co-organised with DOSI, June 2018 in Aberdeen)
- [S3] IGC2/3 NY event details and metrics (<https://bit.ly/3byRRxi>; <https://bit.ly/3uoSSAR>)
- [S4 (group)] (i) IUCN Commentary, Aug 2019 (<https://bit.ly/3st1gxp>); (ii) submission by IUCN on Modalities for Access and Benefit Sharing (Oct 2020); (iii) testimonial from Senior Legal Officer of the IUCN
- [S5] Testimonial from Deputy Permanent Representative, Permanent Mission of Jamaica
- [S6] Testimonial from Head of the Maritime Policy Unit, UK Foreign and Commonwealth Office
- [S7] STRONG High Seas – Dialogue Workshop III (February 2020) report
- [S8 (group)] (i) DOSI policy brief; Workshop report, (ii) Royal Society of Edinburgh (January 2020) report; (iii) testimonial from Co-lead of DOSI
- [S9] YouTube Video 'Songs of the Ocean, Podcast and metrics