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The Bellagio Global Dialogues on Intellectual Property

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Recommended Citation

Joe Karaganis, 2012. The Bellagio Global Dialogues on Intellectual Property. PIJIP Research Paper no. 2012-12.

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ACRONYMS

ABS Access and Benefit Sharing

CAMBIA The Center for the Application of Molecular Biology to International Agriculture

CBD The Convention on Biological Diversity

CGIAR The Consultative Group on International Agricultural Research

CIEL The Center for International Environmental Law

CODE Collaboration and Ownership in the Digital Economy

CPTech Consumers Project on Technology

ELI Environmental Law Institute

FAO Food and Agriculture Organization

F/OSS Free/Open Source Software

GPL General Public License

GRPI Genetic Resources Policy Initiative
IAVI International AIDS Vaccine Initiative

ICTSD International Center for Trade and Sustainable Development

IPGRI International Plant Genetics Resources Institute

IPR Intellectual Property Rights

ITPGRFA International Treaty on Plant Genetic Resources for Food and Agriculture (also, the

IT Treaty)

MIHR The Centre for the Management of Intellectual Property in Health Research &

Development

NGO Non-Governmental Organization

PGR Plant Genetic Resources

PIPRA The Public Intellectual Property Resource for Agriculture

PPP Public-Private Partnership

QUNO The Quaker United Nations Office

SPLT Substantive Patent Law Treaty

TRIPS Trade Related Aspects of Intellectual Property Agreement
UNCTAD United Nations Conference on Trade and Development

WHO The World Health Organization

WIPO The World Intellectual Property Organization

WTO The World Trade Organization

INTRODUCTION

The welfare of societies depends increasingly on effective access to knowledge—on capacities both to innovate and to enjoy the benefits of innovation. Differences in these capacities have become a major differentiator of rich and poor, and a fault line in efforts to build a more equitable process of globalization. Since its founding in 1913, the Rockefeller Foundation has been involved in both sides of this equation—innovation and access—as it works to bring knowledge to bear on the root causes of poverty. Investments in medical research, new crop varieties, and other technologies and human capacities have targeted a wide range of problems in public health, food security, and human development. These investments reflect a commitment to expanding the 'common wealth' of human knowledge, as a condition of fostering innovation and extending its benefits to excluded groups.

The steady 'privatization' of knowledge in the past three decades has cast doubt on the viability of this strategy. Media, information technology, and life science companies, especially, have reshaped public policies governing the ownership and use of their products. The emergence of new forms of knowledge—genes, databases, digital formats, and research tools—has been accompanied by new and stronger claims of ownership, and by new ways of defending those claims. As knowledge of all kinds becomes commoditized, the survival of a

shared 'public' knowledge commons has become increasingly tenuous.

Privatized knowledge systems alter the relation between innovation and poverty in ways that are only beginning to be analyzed and understood. The most important dynamic is also the simplest: a market-driven system will systematically underserve those with low purchasing power. It will produce inequalities of access to existing technologies and also in the responsiveness of innovators to the needs of the poor. Addressing this dilemma is one of the major challenges of globalization, with profound consequences for human welfare and development. Increasingly, it has become a debate about the role and scope of intellectual property rights (IPRs), which provide a framework for the ownership of knowledge and ideas.

In 2002, the Rockefeller Foundation launched a grantmaking program to promote intellectual property policies and institutional capacities that better served the needs of the poor. Longstanding Rockefeller concerns with food security and public health figured prominently in this agenda, such as promoting research on neglected diseases and improving poor farmers' access to plant genetic resources. New lines of work reflected growing Rockefeller engagement with information technology and digital rights, and rising concerns with process and

accountability in the global policy venues responsible for the privatization of knowledge—the World Intellectual Property Organization (WIPO) and the World Trade Organization (WTO) especially.

The 'Bellagio Global Dialogues on Intellectual Property' were launched the same year to provide a strategy forum for this larger agenda. Over the next four years, the Bellagio Center played host to fourteen conferences, organized into distinct threads of inquiry on health, access to plant genetic resources, trade and development, systems of innovation, and the needs of indigenous peoples. The conferences pursued a few key objectives: policy analysis and advocacy; strategies for financing innovation and fostering access to knowledge; and perhaps most importantly, interpersonal networking that could advance a broad 'pro-development' agenda for intellectual property policy.

Held each fall, the Bellagio meetings became a gathering place for critical IP expertise and a nascent prodevelopment IP policy community. It provided opportunities for researchers and advocates to engage country delegates to WIPO and the WTO, officials from national health and trade ministries, scientists, entrepreneurs, development partners and others in a spectrum running from global policymaking to local challenges of access to knowledge.

This report is an account of the Bellagio conferences and of their place within the larger arc of Rockefeller intellectual property work since 2002. In a more limited fashion, it is also an account of the transformation of IP from an obscure legal specialty into a major discourse of power and debate about the shape of globalization. The broadest achievement of the Bellagio series—and of Rockefeller Foundation work more generally in this area—has been to make this debate more open, participatory, and engaged with questions of poverty and human development.

BACKGROUND: THE GROWTH OF A GLOBAL IP REGIME

The prospect of a uniform, enforceable, global regime of laws for intellectual property is a recent one. Until recently, countries exercised considerable policy autonomy in the areas of access to knowledge and incentives for innovation. Intellectual property policies in particular were tailored to support national policy objectives, such as developing local technology sectors or facilitating access to medicines or educational materials. Because of this autonomy, the global trade in knowledge goods took place on an uneven playing field marked by differences in patent criteria and copyright terms, approaches to authors' rights and reverse engineering, degrees of IP enforcement, and—by the 1980s—divergent approaches to the emerging fields of information technology and biotechnology. Although international norms for IP protection were written into a variety of international agreements, these were either voluntary or lacked enforcement mechanisms.

Pressure for an enforceable global IP regime began to grow in the mid-1980s, in the context of debates about the future World Trade Organization. It came predominantly from trade officials and corporations based in the richest economies-the E.U., Japan, Canada, and especially the U.S.—which derived a growing share of their wealth from knowledge-intensive industries. The global IP regime took concrete shape with the passage of the Trade Related Aspects of Intellectual Property (or TRIPS) agreement in 1994, which made participation in the WTO dependent on compliance with a range of new and—for many developing countries—higher and more extensive IP standards. The implications of this shift in sovereignty over IP policy were profound and, for many developing countries, not fully understood. At the most general level, TRIPS committed countries to the proposition that the privatization of knowledge was a pre-condition for economic growth and inclusion in the global economy. More specifically, it constrained their ability to calibrate levels of IP protection to achieve development objectives, such as promoting domestic industries or regulating the prices of medicines.

Although some developing-country negotiators viewed TRIPS as the price to pay to end the debate about IP, in practice it proved to be only the beginning. The corporate and national interests behind TRIPS treated it as a floor for new IP policy development, not a ceiling. IP rights and obligations continued to proliferate in the form of new 'TRIPS+' levels of protection built into bilateral and multilateral trade agreements. They proliferated as IPRs were extended to new fields of human creativity (databases, genes) and to peripheral forms of innovation (patents on business methods, protection for clinical studies, technological controls on digital content). Other regulatory actors also became involved as they saw opportunities and threats in the emerging trade framework. The World Intellectual Property Organization (WIPO) worked to recover its

primacy in IP governance by building new layers of regulation that went beyond the TRIPS agreement—with special attention to digital technologies. The Convention on Biological Diversity (or CBD, 1993) established a mechanism for states to negotiate rights to the biological and genetic wealth within their borders. By the mid-1990s, some scholars were calling this proliferation of new ownership claims and technologies the 'second enclosure movement.'

Not all efforts at enclosing the knowledge commons have succeeded: the longstanding goal of 'patent harmonization'—the resolving of differences in national patent laws—has been notably resistant to progress, in part due to greater developing-country awareness of the value of remaining areas of policy autonomy. Nor has regulatory growth been consistent, coordinated, or even compatible at times. Confusion in the face of overlapping international directives is common. The ownership of plant genetic resources, for example, is subject to three very different agreements enacted in the last 13 years: TRIPS, the CBD, and the 2004 'International Treaty on Plant Genetic Resources for Food and Agriculture' (or IT Treaty), which seeks to reinforce the concept of shared human ownership of plant genetic resources diminished by TRIPS and the CBD. Rights and obligations of many kinds have multiplied faster than capacities to manage them. The high cost of navigating these systems has produced its own dynamics, such as constrained 'freedom to operate' in many research fields and industry consolidation as a means of pooling IP and managing IP risk.

This relationship between the proliferation of rights and the difficulty of transacting them has fostered skepticism toward the 'standard innovation model' of IPRs. Traditionally, the justification for strong and pervasive IPRs is that by completing markets for knowledge and ideas they enable efficient transactions. When the second half of this proposition fails, IPRs begin to look less like a strategy for promoting innovation than one for protecting investment and excluding competition. Inefficiency is especially dangerous in the context of patents on 'enabling technologies' that support future innovation, such as research tools and software platforms. Monopoly control of a bottleneck in knowledge production can dampen innovation rather than promote it. Insufficient market power, in contrast, can give rise to 'patent thickets,' in which rights are so diffuse or uncertain that no one can act.

EARLY ROCKEFELLER ENGAGEMENT

Few people appreciated these dynamics in 1994, but by the late 1990s they had begun to find a wider audience. The growing disaster of HIV/AIDS in Africa highlighted the paradox of an innovation system that could develop effective treatments, widely available in the west, but not bring them to bear on a humanitarian emergency. The 2001 entry-into-force of the TRIPS agreement for middle-tier economies threatened to make this situation worse, as India, Brazil, and other producers of cheap generic drugs were required to extend patent protection to pharmaceuticals. Similar patterns repeated in other fields. Agribusinesses had accumulated vast quantities of IP that they refused to either market, due to insufficient prospects of returns, or release, due to fear of competition. Copyright industries, facing a revolution in media technologies, scrambled for legal and technical measures to secure the new digital marketplaces.

Because of the Rockefeller Foundation's longstanding investments in both ends of the innovation cycle—the development of new technologies and their application to social needs—its work was connected and increasingly vulnerable to the growing complexity and imbalances of the global IP regime. This risk was illustrated in the Foundation-sponsored 'golden rice' initiative of the 1990s, in the course of which the production of a new vitamin-enhanced rice variety was blocked for several years by a 'thicket' of privately-held patents on the underlying technologies. A solution was eventually found through the negotiation of an agreement among the key IP holding partners in the project. The Foundation faced similar challenges in the health field, where it had invested heavily in institutions that could coordinate public and private research on new medicines, and then license those products on preferential terms to developing countries (and other humanitarian actors). The International Aids Vaccine Initiative (IAVI, 1996) was the largest of these initiatives. Early IAVI experience confirmed the complexity of this kind of project management, and the lack of wider norms or accepted practices to guide it.

By the late 1990s, Food Security and Health Equity staff at the Foundation were devoting more time and resources to ensuring that the benefits of public and philanthropic investment in new technologies reached those most in need. In a context of increasingly complicated public-private research partnerships (PPPs), this

depended on good relationships with private-sector actors. Rockefeller grantees increasingly needed negotiated solutions with the private sector to ensure access to research tools, essential seeds, and medicines. It also became apparent that the Foundation had a role in advocating new models of IP management to overcome the legal, cultural and technological barriers to access. In 1999, Rockefeller President Gordon Conway's stance against 'terminator' technologies in seeds—which prevented farmers from saving and reusing seeds with desirable traits—provided a high-profile public example of this approach, and a signal of stronger Foundation engagement with issues of access and control. In this case, the Foundation won an agreement from Monsanto to abandon its terminator gene plans.

The complexity of these arrangements also gave rise to a strategy of investment in public-interest capacities for IP *management*, in order to inform institutional choices about how and when to publish, patent, and license their technologies. IP management strategies were needed to ensure that vital research and development paths remained unencumbered by private claims and that licensing arrangements served public ends.

They promised to lower the information costs inherent in navigating complex, overlapping IP regimes. These were difficulties faced by both public and private-sector institutions, and were a basic obstacle to making the IP innovation model work in poor countries. By 2000, efforts were underway in both the Health Equity and Food Security areas to identify points where investments in IP management could improve developing country access to medicines, plant genetic resources, and other vital knowledge goods. Collectively, these were investments in institutional policies, not policy change at the national or global level. They were investments in making the existing IP system work more effectively in poor countries, not efforts to change the rules.

A third line of Rockefeller IP work grew out of the 'Creativity in the Digital Age' initiative, established in 1999 within the Creativity and Culture theme. This project focused on the convergence of art, science, and information technology, and on the accompanying growth of new forms of cultural agency, from the plasticity of audio-visual media, to new forms of collaboration and sharing. These developments posed diverse and sometimes fundamental challenges to the legal and

The Bellagio Conference on Cultural Agency / Cultural Authority March 11-13, 1993

The launch of the IP Program and the Bellagio conference series marked a tipping point in a process of education within the Foundation about the impact of IP policy on its core missions. This process was supported by dialogue between staff and an array of external partners working in law, health, trade, development, agricultural science, and other areas of long-term Foundation interest. In 2000 and 2001, this was a diverse group with relatively few lateral connections or long-term experience with IP policy concerns. Collectively, however, they had numerous connections to different Rockefeller staff—a fact that helped underwrite a convergence of interest in IP among staff, if not consensus about solutions. By 2001, this conversation had achieved sufficient critical mass to support a shift in Foundation strategies and the launch of the IP Program. It was not yet an effective force for global IP policy change, despite some success in the area of access to medicines. The IP program was designed in large part to strengthen and expand this network.

The importance of this threshold moment of field for-

mation for the process of change within the Foundation can be illustrated in part by the lack of uptake of an earlier version of this conversation held in 1993, also at Bellagio. The 'Bellagio Conference on Cultural Agency / Cultural Authority' brought together a different set of actors who had begun to investigate the relationship between the emerging global IP regime, human creative capacities, and broad areas of social welfare. The group tilted heavily toward lawyers, anthropologists, new media researchers, and literary scholars involved in exploring the history of authorship and the future of digitally-mediated cultural production. It was this disciplinary intersection—rooted in part in the wave of recent interest in the legal construction of authorshipthat produced some of the earliest understanding of the direction and consequences of global IP policy. The conference produced a 'Bellagio Declaration' that identified many of the challenges that Rockefeller would take up eight years later. It noted that:

First: Intellectual property laws have profound effects on issues as disparate as scientific and artistic progress, biodiversity, access to information, and the cultures of indigenous and tribal peoples. Yet all too often those laws are constructed around a paradigm that is selectively blind to the scientific and artistic contributions of many of the world's cultures and constructed in fora

economic organization of culture, from the growth of collaborative models of production that had no singular 'author' to the diminishing cost of reproducing and distributing digital works. From the start, Rockefeller engaged efforts to articulate the public's rights to use and innovate with the new technologies. It supported policy analysis of 'fair use' provisions of copyright in the new digital environment and inquiry into the future of the cultural institutions that depended on them, such as libraries. It encouraged experiments in extending new 'open source' models of software production to other areas of cultural practice, such as the digital arts. Events such as the Collaboration and Ownership in the Digital Economy (CODE) Conference, held in Cambridge (UK) in 2001, provided important gathering points for this nascent cultural and technological movement.

Distinct from other areas of Rockefeller interest, the Digital Age agenda worked in areas where critical perspectives on the IP system and experimental alternatives to it had become relatively common. With some significant exceptions, this line of Foundation work had a strong US-based research and advocacy agenda, visible in the funding of groups such as Public Knowledge,

Creative Commons, the Future of Music Coalition, the American Assembly, and the American Library Association.

The opportunity for a more explicit Foundation approach to global policy began to emerge in 2000 and 2001, as groups of NGOs and academics with critical perspectives on globalization began to reframe these as critical positions on IP policy.

Early coordination among these experts began to clarify some of the preconditions for successful IP policy reform, beginning with wider access to policy fora for public-interest NGOs, greater expertise and better coordination among developing-country delegates and national ministries, and closer monitoring of the policy venues in which innovation and access to knowledge were at stake.

These ideas found fuel in a number of controversial, widely-publicized cases of IP enclosure. Among the most prominent were biopiracy cases involving the foreign patenting of indigenously cultivated plants—the (Mexican) Enola bean, the (Indian) Neem tree, or the (Madagascaran) Rosy Periwinkle; the criminalization of certain kinds of computer research with implications for

where those who will be most directly affected have no representation.

Second: Many of these problems are built into the basic structure and assumptions of intellectual property. Contemporary intellectual property law is constructed around the notion of the author, the individual, solitary, and original creator, and it is for this figure that its protections are reserved. Those who do not fit this model—custodians of tribal culture and medical knowledge, collectives practicing traditional artistic and musical forms, or peasant cultivators of valuable seed varieties, for example—are denied intellectual property protection.

Third: Such a system has strongly negative consequences. Increasingly, traditional knowledge, folklore, genetic material and native medical knowledge flow out of their respective countries of origin unprotected by intellectual property, while works from developed countries flow in, well protected by international intellectual property agreements, backed by the threat of trade sanctions

Fourth: Systems built around the author paradigm tend to obscure or undervalue the importance of "the public domain," the intellectual and cultural commons from which future works will be constructed.... The aggressive

expansion of intellectual property rights has the potential to inhibit development and future creation by fencing of "the commons."

In general, we favor an increased recognition and pro tection of the public domain. We call on the interna tional community to expand the public domain through expansive application of concepts of "fair use," compulsory licensing, and narrower initial coverage of property rights in the first place. [The] main exception to this expansion of the public domain should be in favor of those who have been excluded specifically by the authorial biases of the law.

By 2004, the Bellagio conversations had reached a similar set of conclusions via discussions of trade, health advocacy, food security, and indigenous rights. By that time, Rockefeller and other donors had cultivated more robust policy and advocacy networks that could translate this critique into action at the WTO, WIPO, and other global policy venues.

digital copyright; and the suit brought by pharmaceutical companies against the South African government over access to patented medicines, among the most prominent.

Central to this process was the growing debate about the priority of public health over intellectual property rights—a debate catalyzed by the AIDS crisis and the development of effective but, for low-income countries, unaffordable drug treatments. Via grants to CPTech and other organizations, the Rockefeller Foundation played a key role in the public advocacy work that led to the 2001 'Doha Declaration on TRIPS and Public Health,' which affirmed the right of countries to use existing flexibilities in the TRIPS agreement to protect public health, including compulsory licensing for patented medicines. Much of the subsequent global health policy agenda of the Rockefeller IP program and the Bellagio series derived from this work. Among the most urgent questions was how countries with no pharmaceutical manufacturing capacities—and therefore no way to benefit from compulsory licenses—could exercise their right to public health under TRIPS.

The Doha declaration signaled to many developing-country actors and international advocacy groups that TRIPS was not written in stone, and that struggles over the revision and interpretation of global IP policy were both possible and necessary. A belated but powerful conversation about the ownership of knowledge in the global information society was underway.

The lateness of this effort was not lost on the principals in this conversation. There had been little appreciation of these issues when the architecture of global trade and global IP regulation was built in the late 1980s. There was not much more when it was ratified in the early 1990s and extended to digital technologies a few years later. Still, in 2000 and 2001, many advocates saw a window of opportunity for making important changes to the IP regime. The poorest countries were not yet required to comply with TRIPS, and the implications of middle-tier country compliance in 2001 were not clear. Media industry intentions for the digital economy had been signaled more than once, but the technologies that would enable rigorous control of content and technical innovation were not yet in place. Important policy discussions about patents, the ownership of genetic resources, and the protections afforded traditional knowledge were still ongoing. Promising new models for expanding access to knowledge and collaborating across large groups were showing their potential or getting underway, from Free/Open Source Software (F/OSS), to the public genome project, to Creative Commons, to open access publishing initiatives such as

the Public Library of Science (PLoS).

These developments resonated strongly with the work of the Global Inclusion unit, which had been established to foster cross-thematic coordination within the Foundation. Global policy—and increasingly IP policy—was a natural focus for this work.

THE INTELLECTUAL PROPERTY PROGRAM

The Rockefeller Foundation's IP Program grew directly out of this critical engagement with IP within its partner networks. The collective sense of urgency—of diminishing opportunities to build an equitable global knowledge society—informed a five-year program plan organized around the goal of "fairness" in IP policy. Fairness, in this context, meant balancing four general objectives:

- Reasonable returns on investment in research and development.
- Access to key research technologies and end products (such as medicines).
- Investment in research and development in areas with low commercial prospects.
- Protection of knowledge and materials created outside the commodity economy (such as traditional knowledge).

Substantively, it implied grantmaking in three general areas:

- Advancing the IP debate through policy analysis, policy development, and attention to process and representation in national and global policy settings.
- Strengthening institutional capacities, leadership, and coordination among pro-development actors in the IP field, with an emphasis on developing countries.
- Exploring and supporting alternative policy frameworks, models of innovation, and practices of IP management.

These different layers of work satisfied a strategic need, on the part of the program, to explore IP as both

a policy concern and as a practical framework that structured research and access to technology. In part, this diversity reflected different perspectives on IP within the Foundation. The Health Equity and Food Security agendas of the late 1990s, for example, had focused primarily on helping intermediaries use the IP system more effectively. The new program incorporated and extended this work. The Global Inclusion agenda, in contrast, fostered more critical perspectives on rulemaking within global institutions like WIPO and the WTO. Over time, all of the themes supported the development of alternatives to the standard innovation model, in which high IPRs are the primary spur to invention and discovery.

Rockefeller work on IP was organized as a 'cross-the-matic' program that drew resources and staff support from all the major Foundation areas. This horizontal network created incentives to coordinate differences in approach, but not—in the end—to strongly consolidate them. The program consistently operated on multiple, relatively self-contained tracks. Frequent meetings of the 'IP Team' provided opportunities to develop linkages between these projects, and many reflected and benefited from such consultation and, in some cases, co-funding. Shared concern with biotechnology in the Health Equity and Food Security units provided the main opportunity for partnerships. The funding of CAMBIA's biotechnology patent database was a notable example.

The prominence of the medicines question, of technology-focused development issues, and of the TRIPS agreement in the early phase of IP global policy advocacy matched up well with the Foundation's core investments in health and agricultural research. This alignment stamped the program and, ultimately, the Bellagio series, with a strong emphasis on technological innovation and access, and on the regulatory tools proper to them, such as patents. As other donors such as the Open Society Institute and the MacArthur Foundation entered the IP area in 2002-2003, health and agricultural technologies remained a natural Rockefeller specialization. Partly in light of this specialization, OSI, MacArthur, and later the Ford Foundation prioritized areas of cultural expression, digital technology, education, and copyright. The fouryear evolution of the Bellagio series was in part the story of the convergence of these debates.

THE BELLAGIO DIALOGUES

Where the IP Program met a need for coordination within the Foundation, the Bellagio series focused on coordinating and strengthening external partner networks and policy communities. The series inherited the mixed agenda of the IP program and partially reproduced it in a number of distinct conference 'threads' led by core Rockefeller partners. Each of these threads played out over several years and multiple events. They provided the unifying themes, core participant groups, and longer-term engagement required to act strategically in policy environments. Over time, they fostered closer relationships among key subsets of the IP community.

Global trade and development policy was the most central of these threads, reflecting the prominence and cross-cutting nature of TRIPS. Health was a second and closely-related focus, with special attention to the opportunities and challenges presented by the Doha Declaration. Access to plant genetic resources was a third, taking up both the challenges encountered in Rockefeller Food Security work and the confusing state of international agreements on ownership and access to genetic materials. IP issues facing indigenous peoples were a fourth thread, encompassing both substantive issues such as the protection of indigenously cultivated plants as well as concerns with policy expertise and political representation in governance forums. A fifth, underlying concern was the exploration of new and alternative systems of innovations, from new practices of IP management to Open Source models of collaboration.

Bellagio organizers also worked to build connections between the threads, and in the process to give flesh to a still mostly notional pro-development IP coalition. This lateral work was pursued through two main strategies: synthetic discussions that 'cross-fertilized' topics from different events and the close scheduling of the conferences themselves each fall, which, it was hoped, would enable cross-over participation. The first strategy was generally considered a success: the series of pro-development 'IP agenda' meetings led by ICTSD (the International Center for Trade and Sustainable Development) and UNCTAD (the United Nations Conference on Trade and Development) used the global trade and policy lens to bring together a wide range of concerns from public health to technology transfer to the fate of the commons. Meetings on health and on food security also bridged distinct problems and strategies, from patent pools and other forms of IP management, to the role of 'open source' models of collaboration in the life sciences, to novel public funding and private liability alternatives to IP-based innovation systems.

Logistical issues made the second strategy less successful in a narrow sense: few participants could invest the time required to attend multiple meetings at a time. Moreover, few participants outside Rockefeller staff—and, with staff turnover, even among Rockefeller staff—

had the vantage point to understand the series as part of a single enterprise in more than general terms. The dynamics of this problem were suggested in a post-2002 series survey of participants, in which 91% of participants indicated that the conference they attended had strengthened their sense of participation in a larger community of development-oriented IP practitioners, but only 59% were aware that their conference was part of a larger series. A brochure, "Promoting a Fairer Course

Structures of Participation

The continuity of the Bellagio series from year to year and across the different threads of work was ultimately maintained by a small group of Rockefeller staff, organizers, and major partners. Over four years, the series brought together some 220 different participants, of whom about thirty became repeat attendees. Of these, approximately ten attended three or more meetings, with a majority representing core grantees of the IP program: ICTSD and the South Centre; the Meridian Institute; the Call of the Earth Circle; and CPTech.

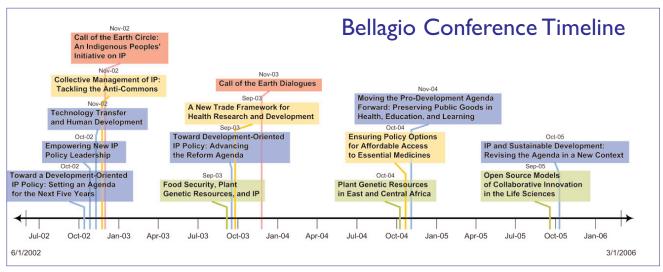
for Intellectual Property Policies and Practices," was produced in 2003 to provide a stronger public identity and sense of continuity for the events. No further surveys or promotional efforts were conducted.

Participants in the Bellagio series often praised the meetings for 'cross-fertilizing' ideas and perspectives from different fields. Effective conference organization, the convening power of the Foundation, and the residential setting of Bellagio certainly contributed to this process. But such exchanges also depended on the carefully-constructed role of the series within a larger ecology

of actors, institutions, and projects. The conferences were designed to meet diverse research, advocacy, and practitioner needs, from networking to policymaking to project incubation. The feedback loop between the series and the IP program meant that the series echoed parts of the program's agenda and also shaped it over time. This relationship helped the pro-development IP community coalesce and advance its work on many different fronts over time. Throughout its four-year run, the series continued to generate new projects, networks, and policy initiatives.

The series became a focal point for a larger community of actors by cultivating these outward connections. In most cases, Bellagio conferences were part of a wider network of activities that included preparatory meetings, follow-on events, and connections to larger projects organized by Rockefeller partners. Many of these secondary convenings were viewed by organizers and participants as part of the Bellagio series.

Supporting this extended network was part of the field-building ambition of the IP Program. It also reflected thinking about the comparative advantage of the Foundation as a convener in the larger IP policy space. By drawing together the overlapping and geographically dispersed networks of Rockefeller partners, the Bellagio meetings fostered an increasingly coordinated and well-resourced 'pro-development' global IP policy community. Over time, this more cohesive community proved successful in translating Bellagio recommendations into policy conversations at WIPO, the WTO, and other governance fora.



GLOBAL POLICY, DEVELOPMENT, AND TRADE

In the fall of 2002, the goal of building a meaningful 'development agenda' for IP was framed primarily by the TRIPS agreement. TRIPS had come into effect in middle-income countries in 2001 (least-developed countries had five more years to comply). By 2002, a number of problems with TRIPS were apparent:

- TRIPS implementation was expected to produce a \$20 billion transfer of wealth from low and middleincome countries to high-income countries.
- Strong enforcement of intellectual property regimes was proving costly and impractical in many countries, exposing them to censor and sanction through the WTO and other trade agreements.
- National sovereignty over matters of public health, food security, and economic development were diminished by TRIPS without significant evidence of countervailing benefits. Bilateral and multilateral trade agreements tended to erode this sovereignty further, as TRIPS became the floor for new agreements.
- Developing countries continued to be outmaneuvered in the WTO, and had little effective capacity or leverage to influence decision making.
- High-income countries, led by the US, EU, and Japan, continued to press for further 'harmonization' around around higher levels of protection and more pervasive application of IPRs.

These policy concerns set the stage for the annual 'Dialogue' conferences organized by ICTSD (the International Center for Trade and Sustainable Development) and UNCTAD (the United Nations Conference on Trade and Development). This thread within the Bellagio series was arguably the broadest in its concerns and most synthetic in its approach. It was premised on the need to explore relationships among the diverse areas of IP policy impact. Expert papers commissioned ahead of the meetings contributed to this knowledge-building process, and allowed the meetings to move quickly beyond basic fact finding. Policy discussions within the meetings helped develop applications for this knowledge.

Maintaining close contact with IP policy processes meant that participants in and audiences for the work regularly overlapped. The meetings both relied on experts in trade, health, law and other fields and, through the discussions, helped those experts understand their work in wider policy contexts. The meetings drew on developing-country officials and delegates to WIPO and the WTO, and, through that involvement, encouraged a sense of national ownership of resulting policy initiatives. Special attention was paid to the wider and increasingly coordinated transnational civil society movement—especially consumer, health, and technology advocacy organizations in the US and EU. These networks became adept at translating complex IP policy concerns to wider publics. Lastly, the meetings involved and addressed the donor community, which had begun to take an interest in IP issues but which had not yet developed programmatic approaches to IP poli-

Many of these actors were based in Geneva, in proximity to the WTO, WIPO, WHO and other key global governance bodies. In particular, the ICTSD/UNC-TAD events were tied to a larger group of Geneva NGOs who used the conferences as policy laboratories and project incubators. Building the IP research and advocacy capacities of this small network was a key strategic choice of the IP Program, and a focus of the Global Inclusion unit in particular.

The 'development-oriented agenda' signaled in the title of several of the ICTSD/UNCTAD meetings was not a document but rather the four-year conversation itself, channeled through Bellagio, captured in reports, and advanced through a wide range of associated projects, papers, and conferences. The goals of this conversation were articulated in a 2002 strategy paper prepared after the first meeting, entitled "Towards Development-Oriented Intellectual Property Policy: Setting an Agenda for the Next Five Years." The paper offered a wide-ranging challenge to the direction of post-TRIPS IP policymaking and to the failures of process in global governance that continued to disadvantage developing countries. It offered a series of broadly-framed propositions for making IP policy accountable to development objectives, beginning with the need for developing countries to preserve and use existing flexibilities within international IP agreements. The documents offered suggestions for new treaty initiatives that could rebalance the terms of global trade, and made arguments for improving technical assistance programs to developing countries. It identified areas where effective policy was impossible without a stronger knowledge base of

research and data, and suggested strategies through which policy change could be realistically pursued.

The framing concerns of this statement were not fundamentally new in 2002; nor did they change significantly in the course of subsequent meetings. Conversations would continue to revolve around and build on four main themes:

- the role and future of IP in the multilateral trading system;
- the challenge of new treaty development and harmonization;
- the promotion of effective national policy for mulation; and
- the integration of IP policies into development strategies.

In 2002, these themes informed a pro-development agenda focused primarily on defensive strategies with regard to TRIPS, capacity building in developing countries, and research on areas of policy impact that remained obscure. Specific recommendations included:

- Stopping the IP harmonization process at WIPO especially in regard to the proposed Substantive Patent Law Treaty (SPLT). The agenda proposed a major research investment by NGOs geared toward analyzing the costs of declining national discretion over IP policy.
- Contesting efforts by the US and EU to impose TRIPS+ standards of protection through newer WIPO treaties and bilateral and regional trade agreements.
- Maintaining and encouraging the use of flexibilities within TRIPS (and other agreements) to promote public health and other pro-development goals.
 Continuing discussions around the 'Doha Declaration on TRIPS and Public Health' provided the main focus for this conversation.

- Insisting on higher standards of evidence and data collection on the impact of IP policy, especially with respect to developing countries and development objectives. Again and again, these meetings would highlight the dearth of serious research and data in this area. 'Development assessments' of the impact of new laws were almost never conducted.
- Moving WIPO toward an explicit commitment to development as an objective, and toward reforms of process and participation.
- Improving and expanding technical assistance programs to strengthen developing-country capacities to formulate and implement IP policies that addressed their specific needs.
- Working to resolve confusion about the relationship between existing treaties, especially between TRIPS, the Convention on Biological Diversity (CBD) and the new 'IT' treaty on plant genetic resources.
- Resisting the creation of new constraints on user innovation in the digital arena, including 'anti-circumvention' measures and other policies.
- Working toward the broader reframing of IP policy as part of a debate about technology transfer and development—about technology for development. The desirability of a 'technology treaty' or 'research and development treaty' was signaled in this document, and would come up repeatedly in future meetings.

In 2002, the main ICTSD/UNCTAD 'dialogue' was complemented by two other conferences. 'Empowering New IP Leadership' brought together educators and organizations engaged in IP capacity building and technical assistance to design a mentoring strategy for future IP policy leaders from developing countries. 'Technology Transfer and Human Development' was a smaller gathering of economists and lawyers focused on engaging the newly formed WTO Working Group on Technology Transfer. In the first case, no new capacity-building initiatives emerged, and the mentoring role fell primarily to the

Background Papers

All of the policy papers and reports from the ICTSD/UNCTAD conferences are available online at http://www.iprsonline.org/index.htm

The South Centre also has an online archive of related materials available at http://www.southcentre.org/IPProject/ipindex.htm

existing network of Geneva NGOs—notably the South Centre, which received a Rockefeller grant to expand its training and fellowship capacities. The technology transfer meeting produced a research agenda and advocacy strategy designed to advance and reframe the technology transfer conversation among OECD and developing-country representatives. This work was folded into a sustaining grant to ICTSD, and pursued in two Geneva conferences in 2003.

The second Dialogue in 2003 followed the path laid by the 2002 event. It deepened the analysis of TRIPS+ initiatives (now in light of the August 2003 'Medicines Decision'), movement toward patent harmonization, and the apparent stalemate of discussions about traditional knowledge and genetic resources at WIPO. It revisited the question of technology transfer, focusing in particular on strategies for implementing TRIPS obligations toward least-developed countries. And it developed a more detailed account of needed reforms to technical assistance for developing countries.

By 2004, several factors had combined to make a defensive focus on TRIPS less central to the pro-development IP community—among them, the provisional settlement of the medicines question; the relative lack of traction on technology transfer issues; growing advocacy interest in copyright

and the regulation of the digital economy; and the prominence of WIPO and bilateral/regional trade agreements as engines of new IP policy. The 2004 Dialogue tracked this shift in ideas, risks, and opportunities. Called 'Moving the Pro-Development Agenda Forward: Preserving Public Goods in Health, Education, and Learning,' the conference explored new positive rights frameworks and efforts to foster 'public goods' in knowledge—i.e. knowledge subject to few or no access restrictions. The meeting took place amidst a flurry of larger initiatives advanced by members of the Bellagio network—the acceptance of the 'Development Agenda' framework at the September WIPO General Assembly, the drafting of the 'Research and Development Treaty,' and the discussions that would lead to the drafting of the Access to Knowledge treaty in early 2005. The meeting also signaled a partial convergence of the health and agricultural technology agendas with issues of digital culture and copyright—bringing the series closer to the integrated approach to IP and innovation policy envisioned in the first stages of the work. This shift was signaled in three new lines of inquiry:

Data Exclusivity: the protection of clinical trials and other data associated with the regulatory approval of

The Geneva NGOs

The core Geneva IP network comprised four organizations: ICTSD, the South Centre, CIEL, and QUNO. These brought distinctive and, in many respects, complementary forms of expertise to questions of development, IP policy analysis, and policy advocacy. They occupied a relatively small social and professional world in Geneva, which provided many opportunities for collaboration and close connection to the communities of country delegates and officials. Between 2001 and 2006, the four organizations received multiple grants from the Foundation to collaborate on IP policy research, technical assistance to developing countries, and advocacy.

- The International Centre for Trade and Sustainable Development (ICTSD) was established in 1996 to support trade policies that favor sustainable development. Its primary activities are policy research and communication.
- The South Centre is an intergovernmental body of developing countries established in 1995 to advise and provide technical support to its members on international policy issues. Trade, development, and access to knowledge have been major foci of its work.

- The Center for International Environmental Law
 (CIEL) is a public interest, non-profit environmental
 law firm, established in 1989, that has been a key contributor to IP policy monitoring and analysis in relation to biodiversity, trade, and sustainable development.
- The Quaker United Nations Office (QUNO) brings policy expertise on trade and IP issues to this network. It has been funded by the IP program through a collaboration with the South Centre.

Another frequent partner in this work was UNCTAD—the United Nations Conference on Trade and Development. UNCTAD co-organized several of the Bellagio conferences with ICTSD. It has a long history of pro-development policy engagement.

new medicines. Although TRIPS was relatively flexible on this question, preventing generic-producing competitors from accessing data submitted by patent holders has become a prominent TRIPS+ feature of bilateral and regional trade agreements. Protecting trial data raises the costs of developing alternatives to patented drugs during much of the patent period. It means that parallel research is left without benchmarks for evaluating the comparative efficacy of potentially competing drugs. Given the

long lead times of drug development, this is an obstacle to competition.

The data exclusivity discussions signaled an effort by Rockefeller staff and the Geneva partners to get ahead of an emerging problem. Data exclusivity had escaped significant notice by IP advocates in part because it had minimal implications for the process of making generic copies of standard drugs, which were usually chemically identical to the

Global Policy Contributions

Because the Bellagio series was connected at so many levels to the work of the pro-development IP community, there are few exclusive cause-and-effect relationships between the series and particular policy outcomes. The series made major contributions to several policy accomplishments—notably the 2003 Medicines Decision, its formal adoption at the WIPO Ministerial meeting in Hong Kong (2005), and the development and acceptance of the 'Development Agenda' in WIPO in 2004. Bellagio also contributed to initiatives that have only recently gained traction within global governance bodies, such as the 'Research and Development Treaty' for healthcare the principles of which were adopted in May 2006 by the World Health Organization. Important contributions were made to TRIPS and WIPO discussions on the 'disclosure of origins' of genetic materials in patent applications as that issue gained momentum in 2004 and 2005. In each of these cases, the translation of development goals into multinational fora produced compromises that have been controversial among the original proponents of the measures—most starkly in the case of the Medicines decision. In each case, however, compromise represents a shift in the larger framework of discussion around IP. The alignment of IP policy with rich country interests is no longer uncontested. Even the most diminished of these agreements reflect success on the part of NGOs and developing country governments in opening global IP fora to discussions about development.

2003-. The Medicines Decision. Rockefeller Foundation grantees played an important role in clarifying the implications of TRIPS for public health and in launching a policy process intended to ensure that TRIPS addressed the health needs of developing countries. The most important achievement of this work pre-dated the IP program: CPTech and other Rockefeller grantees played a significant role in securing the 2001 Doha Declaration on TRIPS and Public Health, which affirmed the right of

countries to issue compulsory licenses on patented medicines in order to protect public health. The declaration did not settle how countries with no pharmaceutical manufacturing capacity were to exercise this right. This topic became the center of a subsequent debate in 2002, and marked a large part of the early Bellagio agenda. Bellagio conferences in 2002 and 2004 were used to coordinate NGO and academic support of developingcountry positions in this debate. They informed the 2003 compromise that specified the right of poor countries to import generic versions of patented drugs from third countries (a statement generally referred to as the 'Medicines Decision'), as well as subsequent debates about how this agreement was to be formally integrated into TRIPS. US and EU concerns about the possible parallel importation of generic drugs into western markets also shaped the decision, and produced eligibility requirements and a licensing mechanism that many public health advocates regard as unworkable. The decision remains controversial and is opposed by many NGOs working to improve access to medicines. The compulsory licensing mechanism specified in the agreement has not yet been effectively used.

2004-. The WIPO Development Agenda. The

Development Agenda was the achievement of several years of collaboration between developing-country governments and a small group of NGOs engaged in WIPO monitoring and policy advocacy—including key Bellagio partners such as ICTSD, the South Centre, and CPTech. The Development Agenda was a short statement designed to shift the role of WIPO from an organization devoted to protecting intellectual property rights to one committed to using intellectual property as a tool for development—bringing it closer, in this respect, to the priorities of other UN agencies. The Agenda was submitted by Brazil and Argentina to the WIPO General Assembly, and passed in 2005. Plans for implementing the Agenda have predictably generated controversy about process and scope, and were taken up formally at the fall 2006 General Assembly. In addition to Brazil and patented drugs and possessed the same properties. Newer drugs produced with biotechnologies, however, are far more difficult to reverse engineer. Substitutes are not likely be chemically identical, and have to be vetted through their own expensive clinical trials. Access to clinical data, in these circumstances, is an increasingly important condition of both competition and timely manufacture of new drugs. The 2004 Dialogue reached a clear consensus that data exclusivity provisions had to be

reversed, and that the results of clinical trials, especially, should be considered public goods. This position became part of the Research and Development Treaty proposal.

 Compulsory licenses for copyrighted materials: The 'access to education' conversation introduced the first substantive discussion of copyright in the series—especially the role that compulsory licensing might play in ensuring developing-country access to

Argentina, the Development Agenda is backed by 12 other 'Friends of Development': Bolivia, Cuba, Dominican Republic, Ecuador, Egypt, Iran, Kenya, Peru, Sierra Leone, South Africa, Tanzania and Venezuela. One possible application of the Agenda is the 'Access to Knowledge Treaty' (below), which was drafted shortly after the acceptance of the Agenda in fall 2004.

2003-. The Research and Development Treaty. First explored at a 2003 Bellagio meeting organized by CPTech, the draft R&D Treaty sketched an alternative framework of financing research and development in healthcare technologies, based on the creation of minimum national obligations for investment. Under the treaty, countries could adopt any method of meeting these requirements, and in return receive greater latitude in the use of IP produced through the treaty mechanism. The treaty also proposed strategies for setting priorities in health research—notably in response to the ongoing problem of 'neglected diseases.' It included requirements that publicly-funded research remain publicly available, and proposed a credits trading model to incentivize the creation of new 'public goods.' The drafting process engaged a wide range of public health NGOs, officials from the World Health Organization, academic researchers, and government officials, and continued through a series of follow-up meetings in 2004. In May 2006, the World Health Organization approved a resolution calling for exploration of the research and development framework, based on a version of the treaty draft proposed by Kenya and Brazil. Work on the design and implementation of the resolution will pass to an intergovernmental working group.

2005-. Disclosure of Origins of Genetic Materials. The term refers to the proposition that patent applicants should be required to disclose the national origins of genetic materials used in inventions. It has gained traction in recent years as a means of addressing 'biopiracy'—the foreign patenting of local plant or genetic materials without the consent of the people or coun-

try of origin. This set of issues was a recurrent and cross-cutting subject of discussion at Bellagio, bridging meetings organized by ICTSD, Call of the Earth Circle, and the Meridian Institute. Bellagio conversations have contributed to increasingly assertive action by a number of the 'megadiverse' countries—India, Brazil, Mexico, and Indonesia among them-which hold a disproportionate share of the world's total biodiversity. In addition to the fairness claims underlying such a requirement, disclosure is seen as a means of reconciling differences between the private ownership of genetic resources specified in TRIPS and the state ownership model defined by the Convention on Biological Diversity (CBD). Although considerable uncertainty remains regarding the substance and implications of such a requirement, the issue has been a recurrent topic in IP governance fora, and was proposed as an amendment to the TRIPS agreement in 2005.

2005-. The Access to Knowledge (A2K) Treaty. The A2K process built on the momentum created by the Development Agenda in Fall 2004. A2K was an effort to codify a set of minimum mandatory limitations and exceptions to copyright and patent law. Among its major provisions, the treaty would solidify fair use rights, especially for educational and archival purposes. It specifies that publicly-funded research and publications belong to the public domain, stemming a long process of 'enclosure' of public knowledge. It blocks the proliferation of new IPRs, such as broadcast rights, software patents, and the patenting of higher life forms. More generally, it provides a platform for enumerating and expanding positive rights of access, instead of couching such rights as limitations to IP laws. Although the Bellagio meetings played no direct role in this proces, the 2004 agenda-setting meeting took place amidst this rapidly evolving conversation, and advanced a number of ideas that appeared in the eventual draft.

educational materials. The right to issue compulsory licenses was afforded by the Berne Convention, which in turn formed the basis for the copyright provisions in TRIPS. Few believed, however, that the complicated Berne procedure could be effectively utilized in this or any other context. The group's call for a new compulsory licensing mechanism became part of the A2K treaty draft, as did its broader concern with establishing mandatory minimum limitations and exceptions to copyrights.

- Digital technologies: The 2004 meeting also marked the first in-depth discussion of new IPRs in the digital arena and their implications for development. The broad direction of IP policy in this area were familiar: higher, more extensive, and overlapping protections had become the norm. Here again, the group artic ulated a combination of defensive and positive strategies, including:
 - Resisting new sui generis rights over information, such as the EU's database right protecting the content of databases.
 - Preventing contractual agreements such as 'click through' licenses from overriding default rights of access.
 - Raising awareness in developing countries about Free and Open Source Software (F/OSS), which has no licensing costs.
 - ▶ Requiring the disclosure of patents used in stan dards setting processes, eliminating the risk of private capture of open standards.
 - ▶ Encouraging WIPO and other organizations to take up the question of anti-competitive practices in the software market.

The 2005 Dialogue offered both a retrospective on four years of IP policy advocacy and an effort to extend and integrate the different threads of the positive agenda that had begun to coalesce in 2004. Patents, copyrights, compulsory licensing, competition policy, the scarcity of high quality research and—encompassing all—the need to package and disseminate these concerns to wider constituencies figured prominently in the discussion. In several areas, participants reflected on a policy landscape that was not much changed. Four years after the first meetings, the prospect of patent harmonization was still

uncertain. Movement on the 'substantive' issues of harmonization—concepts of novelty, inventive steps, and the status of prior art especially—was minimal since the launch of the WIPO Patent Agenda in 2000. Many in the Bellagio process viewed the stalemate as a de facto victory for developing countries that preserved a key area of national policy autonomy. Agreements on process, in contrast, had been easier, and most participants saw positive opportunities for lowering the cost and improving the transparency of national and international patent systems.

At the broadest level, participants viewed growth in the awareness of IP—both as a policy arena and a discourse of power—as a genuine but incomplete accomplishment. Developing countries and civil society actors had become much more active in global IP debates. Strategic North-South alliances between developing countries, consumer groups, and other organizations had demonstrated their utility. The outlines of a comprehensive pro-development IP agenda had been drawn, and important elements had been integrated into WIPO, WTO, and WHO proceedings. The larger work of securing, implementing, and extending this agenda is clearly still in progress.

PLANT GENETIC RESOURCES

Improving the productivity of agriculture in developing countries has been a core commitment of the Rockefeller Foundation and—over time—an area of considerable staff specialization and expertise. Over the last 50 years, the Foundation has invested some \$500 million in research on new crop varieties and other technologies to improve subsistence farming. Nearly all of this investment has flowed into the public sector, reflecting not only the central role of public institutions in agricultural research, but also a commitment to the creation of 'public goods' that can circulate widely at minimal cost. This relatively unencumbered circulation of knowledge and innovation is especially important in agriculture where, distinct from other technological fields, research and practice are often one and the same. Farmers play a fundamental research role in crop improvement and local adaptation. Freedom to save, replant, exchange, and cross breed seeds is a foundation of this practice.

Historically, the dominance of public-sector agricultural research ensured a relatively free flow of new knowledge and genetic materials (mainly seeds) through the range of public and private actors in the field. In

the US, this ecology of knowledge production changed abruptly in 1980 with the passage of the Bayh-Dole act. Bayh-Dole allowed universities for the first time to issue exclusive licenses on technologies developed with public funds, eliminating the default public status of such research. The new prospect of commercializing university-based research launched a strong for-profit research culture within the university system, and set universities on the road toward complex public-private partnerships that channeled public research money into private product development. In fields such as agriculture, it paved the way for the privatization of large public research holdings.

The wide range of tools for protecting incremental innovation in agricultural research meant that new plant varieties could be encumbered by multiple layers of IP claims. The complexity of the patent system, especially, meant that claims could accumulate without any reliable means of signaling or identifying them. Patents were often broad or ambiguous. Different national patent regimes added complexity, and made patent research a task beyond the means of most small research teams. This shift toward private control transformed agricultural research on many levels, most dramatically by promoting the consolidation of ever larger firms in the sector as a means of pooling IP and maximizing 'freedom to operate.'

Since the 1990s, new international agreements have added further complexity. TRIPS extended the model of private ownership of PGRs by requiring member countries to implement plant variety protection measures—although national governments retained discretion over the type of protection afforded. The 1992 Convention on Biological Diversity tried to address the ambiguity of ownership surrounding native plants by emphasizing the sovereign rights of states over their territorial PGRs, balanced by obligations to negotiate access to these resources structured around 'benefit sharing' agreements with local claimants. The International Treaty on Plant Genetic Resources for Food and Agriculture' (or IT Treaty) was adopted after some seven years of negotiation by the United Nations' Food and Agriculture Organization (FAO) in 2001, and entered into force until 2004. It promised a third set of rules and obligations intended to reinforce a global commons model for certain basic food crops.

By 2003, the international policy arena was thus highly complex, with important differences in approach embedded in TRIPS and the CBD. The IT Treaty was controversial and without a clear plan for implementation. Very few countries had taken steps to implement any of these agreements. National policy and human

resources lagged far behind the proliferation of international rules and obligations. The result was often confusion and uncertainty at all levels of research and administration—international agricultural research organizations, national agricultural ministries, public sector and non-profit research institutions, farmers and breeders. Protective stances on ownership, knowledge sharing and materials transfer became an increasingly common default response. For organizations dedicated to fostering research in the developing world, uncertainty was perceived as a serious threat.

In 1999 and 2000, the Foundation sponsored a separate series of 'Dialogues on Modern Biotechnology,' focused on understanding implications of transgenic PGRs for development. The dialogues explored, among other issues, the shifts in the larger ecology of research and access, and their consequences for developing-world agriculture. The Meridian Institute—a Rockefeller partner in the agricultural research field—was commissioned to organize this work. By 2001, these discussions had coalesced into a strategy for strengthening capacities for public-interest IP management, focusing on East Africa—where the Foundation maintained a strong regional presence—and on the public university system in the US, which continued to be a dominant source of innovation in the sector. This work focused initially on two major institution-building projects: the African Agricultural Technology Foundation (AATF), founded in 2003, and the Public Intellectual Property Resource for Agriculture (PIPRA), founded in 2004. Both worked to develop and facilitate licensing strategies favorable to developing-world agriculture. Both worked to develop and share best practices among public and private technology managers.

The unevenness of information about genetic resources was another prominent concern of the series. Much of the debate about PGRs in 2000-2002 focused on the development of databases and information clearinghouses that could clarify ownership at lower cost to researchers. Following CBD recommendations, several countries were conducting national inventories of genetic resources. Rockefeller work in this area focused primarily on the uncertainty surrounding patents and freedom to operate. The IP Program made several grants to the Center for the Application of Molecular Biology to International Agriculture (CAMBIA) to fund the development of a PGR-focused patent database, as well as investing in other organizations involved in policy work on the conservation, use, and exchange of PGRs. The Environmental Law Institute (ELI) and the International Plant Genetics Resources Institute (IPGRI) figured prominently among these.

The Bellagio gathering on 'Genetic Resources' (September 9-11, 2003) was the capstone to a larger Rockefeller-sponsored conference held in Rome earlier in the week. The Rome event was initially conceived as an opportunity to share the findings of two Rockefeller-supported policy projects—the Genetic Resources Policy Initiative (GRPI), a project of the International Plant Genetic Resources Institute (IPGRI), and Developing Legal Frameworks Governing Access to Genetic Resources in Africa, led by ELI. Interest in the meeting was such that it expanded to include some forty representatives of United Nations, regional, and national organizations involved in policymaking on genetic resources. The meeting undertook a wide-ranging exploration of policy and institutional capacity issues related to access and use: international policy concerns with TRIPS, the CBD, and the IT treaty; the challenges of implementing effective policies and benefitsharing practices at the national level; and—arguably the most difficult—the connections between these global policies and local and institutional IP management practices. The follow-up Bellagio meeting brought together a subset of this group to synthesize findings and make recommendations. In general, these focused on the need for capacity

building among stakeholders at the national level as a precondition of effective access and benefit sharing. In a multi-stakeholder, multi-disciplinary, multi-modal policy environment, this effort would necessarily include national policy teams, researchers and breeders, indigenous groups, social scientists, national delegates to international venues, and a number of other groups. A second cluster of recommendations focused on the need for better information brokering and sharing—with a particular emphasis on clearinghouses for navigating ownership claims on genetic resources.

The second meeting in the series (2004) sought to test these findings and recommendations in the narrower geographical context of East and Central Africa, and in particular relation to the problem of enhancing public-sector research access to germplasm. Scientists, plant breeders, and representatives of local and international NGOs contributed a number of research papers that bore out and refined many of the concerns of the 2003 meeting. In general, these found:

 high levels of awareness of the international policy agreements (TRIPS, CBD, ITPGRA) but widespread

Capacity Building for IP Management

AATF and PIPRA were the products of collaboration between Food Security and Global Inclusion staff. The planning and development of both institutions was led by the Meridian Institute—a long-time Rockefeller partner in this area. This phase of consultation and institution-building in 2001 and 2002 informed two Meridian-led meetings on PGRs at Bellagio, and later a third conference on open source models of innovation in the life sciences. The continuity provided by Meridian kept the Food Security agenda closely aligned with the Bellagio dialogues throughout the four-year run.

The African Agricultural Technology Foundation (AATF, http://www.aatf-africa.org/) was established to facilitate access to privately-held agricultural technologies for the benefit of Sub-Saharan Africa. The AATF model focused on the acquisition of technologies through royalty-free licenses and agreements, as well as on the last-mile efforts necessary to make them useful for Africa's resource-poor farmers. Initial projects focused on herbicide-resistant maize and pest-resistant cowpea. The participation of partner organizations from across the research and product-development spectrum was crucial to AATF's organizational model: the founding

brought together some twenty-five stakeholders, from public-sector research directors, to heads of African private sector companies, to multinational life-science companies such as Monsanto.

- Public Intellectual Property Resource for Agriculture (PIPRA, http://www.pipra.org/) is in certain respects a public-sector counterpart to AATF, focused on preserving access to the publicly-funded agricultural research of U.S.-based universities. PIPRA works to shift technology licensing in agriculture from the practice of providing worldwide exclusive rights for the licensee to one that reserves rights for developing-country and humanitarian purposes. Some forty U.S. universities, developing country governments, and international non-profit organizations are members of the PIPRA consortium. PIPRA has grown significantly since its founding, and may become a template for other regional efforts at managing the commercialization of public agricultural research.
- The Center for the Application of Molecular Biology to International Agriculture (CAMBIA) is a nonprofit biotechnology research organization based in Canberra, Australia. In 2003 and 2004, Rockefeller grants supported CAMBIA's development of the Patent Lens—a public, PGR-related database of

uncertainty regarding their national and local application;

- uneven and sometimes unrealistic expectations of the commercial value of genetic resources, with a corresponding growth of proprietary claims and practices.
 Many respondents perceived a negative impact of these agreements on practices of informal, free sharing and transfer of materials;
- insufficient coordination and consultation among stakeholders engaged in research, policy, and decision making—both horizontally among local actors and vertically between local, national, and international venues;
- insufficient data on locally available germplasm, and on regional flows between countries. The latter question, especially, pointed to the limitations of CBD-based national concepts of ownership, which tended to impose artificial geographical boundaries on genetic materials.

Linking all of these issues was the chronic problem of insufficient human and institutional capacity to address and manage questions of ownership and innovation.

The 2004 meeting took place just after the entry into force of the IT treaty. Participants agreed that the ongoing discussions about the treaty implementation offered the best opportunity for research policy inputs. An 'African Working Group on Genetic Resources' was also proposed as a way of developing coordinated policy positions among the participating countries. This working group did not materialize, although a parallel effort among African country negotiators did.

Distinct from the ICTSD/UNCTAD conference series, the Meridian-managed series on PGRs emphasized the problem of vertical policy integration—of connecting global policy initiatives not only to national policies, but also to local and institutional practices. This has unique importance in the agricultural research field, where even the poorest farmers are producers—not just users—of technological innovations. It was also a response to the perceived dangers of an emerging culture of restrictive ownership, which threatened to leap ahead of actual policies governing access.

The 2003 event tapped collective concern and uncertain-

patent information designed to help researchers clarify their 'freedom to operate' in the multi-jurisdictional, often bewilderingly complex patent landscape.

Rockefeller work in Health Equity followed a similar, though somewhat independent path of developing IP management strategies for developing-country research institutions. This led to the founding of the Centre for the Management of Intellectual Property in Health Research & Development (MIHR) in 2002.

Property in Health Research & Development (MIHR, http://www.mihr.org). MIHR was created to help publicly-funded health research institutions in developing countries manage the transfer of their innovations to their own private sector in a form accountable to the public interest. To this end, MIHR develops and disseminates guidance on best practices in technology management—notably on the challenges of building effective local public-private partnerships. More recently, this work has been extended to publicly-funded research institutions in high-income countries. The 2003 Handbook of Best Practices is MIHR's lead publication.

meeting apart from the Bellagio IP series framework. MIHR—and Rockefeller Health Equity work on IP management and innovation systems more generally—remained largely on a separate track, with only occasional intersections with the global policy conversations conducted between 2002 and 2004.

By 2005, a partial convergence of the Health and Genetic Resource conversations was underway, rooted in common concerns with the ownership of genetic information, the relationship between nutrition and health, and the management of public/private research boundaries. It reflected, too, the growth of an increasingly multi-layered approach by Health Equity staff to interventions in the 'Global Health Innovation System.' This convergence was supported through IP program grantmaking, and manifested in the 2005 Bellagio conference on models of innovation in the life sciences. A leading indicator was the IP Program-supported effort to coordinate the licensing and IP management practices of MIHR and PIPRA in 2004.

MIHR planning and development included a 2001 Bellagio

ty among international actors about these disconnects. The 2004 event took up the difficult and necessary task of localizing those concerns, and specifying the national and regional strategies appropriate to them.

TRADITIONAL KNOWLEDGE

The IP Program was built on the argument that the substantive problems of global IP policy were inseparable from problems of process and participation. The WTO and WIPO were famously closed institutions, largely unconcerned with transparency, diversity of inputs, or legitimacy in the eyes of civil society groups. Rockefeller support for the Geneva NGOs was intended in part to increase pressure on these organizations for greater openness, transparency, and enhanced participation by 'propoor' advocates and representatives.

The 'Call of the Earth' initiative (www.earthcall.org) shared these goals. Call of the Earth was devoted to improving the capacity of indigenous peoples to engage in international IP policy debates on issues that affected them. The launch of the initiative at Bellagio in 2002 culminated a year of consultations with indigenous groups and international organizations to determine the appropriate form and focus of such an effort. Although the vulnerability of indigenous peoples to biopiracy and other forms of appropriation had received increasing attention by policy communities and by indigenous peoples themselves, there was no institutional means of formulating or voicing indigenous positions in global fora. Call of the Earth was established to provide that structure.

The initiative brought together a wide range of indigenous leaders, researchers, and policy advocates to explore the terrain of indigenous IP concerns and positions. Although the initiative was housed at the United Nations University's Institute of Advanced Studies in Japan, it acted primarily as a virtual network linking a geographically dispersed membership. Bellagio meetings in 2002 and 2003 were the principal occasions for faceto-face meetings. The second of these was followed by a larger policy meeting in Como, Italy on the subject of Access and Benefit-Sharing (ABS) around plant genetic resources.

The challenge of building common positions from diverse indigenous perspectives was apparent from the earliest consultations. Much of the early work of Call of the Earth, consequently, was built around a research agenda that could begin to distill and analyze indigenous experiences with the ownership and control of knowl-

edge resources.

Substantively, the primary areas of concern closely tracked broader policy conversations about access to genetic resources: the challenges of inventorying genetic resources as a way of clarifying ownership claims; problems of biopiracy and other forms of misappropriation by outside parties; the utility and prospects of 'disclosure of origins' requirements as a basis for benefit-sharing agreements; and—especially—strategies and guidelines for effective benefit-sharing in contexts where the commercialization of genetic resources could serve indigenous interests. In contrast, the meetings dealt much less frequently with the cultural dimensions of traditional knowledge, such as questions of cultural heritage and the traditional arts.

In 2002 and 2003, access and benefit sharing dominated the substantive discussions, in part reflecting the timing of upcoming meetings of the CBD Working Group on those issues. Since its adoption in 1993, the CBD process had focused much of its attention on fleshing out its central principle of "fair and equitable sharing of the benefits arising out of the utilization of genetic resources." In 2003, this work focused on the recently passed 'Bonn Guidelines,' which provided detailed guidance for how benefit sharing agreements were to be negotiated. Engaging the CBD process was attractive in part because it was much more receptive to indigenous participation than WIPO and the WTO. The research papers from the 2003 meeting were submitted to the Working Group as part of its call for research inputs.

Organizationally, the initiative proved much more complicated than originally anticipated. Underlying the challenge of finding common policy positions were broader disagreements about the utility of engaging the compromise-driven, forum-based advocacy that the WTO and WIPO processes, especially, required. Opposition to the patenting of life forms, for example, made the give and take of policy negotiation unappealing to many participants. Related tensions about the governance structure of the group proved to be another area of difficulty.

For IP Program staff, the Call of the Earth initiative was conceived as one half of a two part initiative on indigenous rights. The original plan envisioned the creation of a complementary legal defense fund that would take up cases of misappropriation of indigenous knowledge. Given the unresolved difficulties of the Call of the Earth process, this project was never pursued. The Foundation did, however, make a modest investment to help launch the Public Interest Intellectual Property Advocates, a network of IP legal experts that provides pro bono legal assistance on IP issues to public-interest

clients, including indigenous communities.

HEALTH

Like the issue of access to genetic resources, access to medicines and the financing and organization of healthrelated research and development were core concerns of the Bellagio series. This attention was driven in large part, at the outset, by the opportunity to shape the debate about TRIPS flexibilities and compulsory licensing created by the 2001 Doha Declaration on TRIPS and Public Health (the Medicines Decision). The declaration specified the right of countries to prioritize public health within the TRIPS framework—affirming the right of, e.g., Brazil or India to issue compulsory licenses for the local production and use of patented medicines. This was not a hypothetical freedom. The threat of compulsory licensing had been a foundation of the Brazilian public health campaign against AIDS since the late 1990s, where it resulted in dramatically lowered prices for anti-retroviral drugs. To this day, Brazil manages the only effective large-scale HIV/AIDS treatment program in the developing world.

The main difficulty—widely recognized at the time—was that the declaration provided no means for countries that lacked pharmaceutical manufacturing capacities to exercise that right. The 2003 Medicines Decision sought to resolve this problem by specifying a process through which poor countries could import patented medicines as generics from foreign producers. Many health advocates saw this as an empty victory: the specified mechanism was cumbersome and, many believed, unworkable. These concerns have kept access to medicines and compulsory licensing on the TRIPS front burner despite the formal amendment of TRIPs to include the Medicines Decision at the 2005 WTO Ministerial meeting in Hong Kong.

CPTech and other Rockefeller grantees played important roles in the original Doha negotiations. The need for continued efforts to exploit the Doha opening was clear to many of the principals in that debate, and formed an important part of early Bellagio series planning. ICTSD/UNCTAD's 'Agenda-setting' meetings took up the subject of compulsory licensing and other TRIPS flexibilities on several occasions in 2002 and 2003. In the wake of the Medicines Decision, and in anticipation of the 2005 entry-into-force of TRIPS pharmaceutical patent requirements for India (a major supplier of generic versions of patented medicines), Rockefeller staff, ICTSD, and UNCTAD organized a more focused exploration of this 'regulatory toolbox.'

The 2004 'Dialogue on Ensuring Policy Options for

Affordable Access to Essential Medicines,' was part of a conscious effort by the IP Team to bring together grantees that had been working on IP management at the institutional level, often in collaboration with the private sector, with those grantees focused on global IP debates that often brought them into conflict with the private sector. It was also, in part, an effort to bridge some of the differences in approach that had emerged within the Foundation and between Foundation grantees early on in the design of the IP program. The Dialogue took up four distinct strategies for improving access to medicines:

- The role and effectiveness of Public-Private Partnerships (PPPs) in addressing neglected diseases. These took many different forms, ranging from partnerships focused on product development and the financing of innovation, to those concerned with access to medicines and strengthening national health systems. Participants from MIHR and other Rockefeller-sponsored efforts played a large role in this conversation.
- The effective use of compulsory licensing, especially in the context of the Medicines Decision. Much of the discussion focused on strategies for strengthening the capacities of developing countries to identify and respond to anti-competitive pricing. Simplified, standardized compulsory licensing procedures offered one possible answer. Coordinated regional initiatives were another. Both held some promise of increasing the options and leverage available to countries with nominal manufacturing capacity and limited IP expertise.

• Promoting local drug manufacturing capacities.

The lack of manufacturing capacity in many countries was the major bar to effective compulsory licensing. The Medicines Decision was cumbersome in part because it forced licensing solutions out of the area of national policy and into the more complicated setting of bilateral and multilateral trade. Expanding manufacturing capacities was viewed by many participants as a necessary though by no means adequate response to the compulsory licensing problem, and more generally to pharmaceutical industry consolidation and the upcoming 2005 TRIPS requirements on pharmaceutical patents.

Looking ahead, the group identified a major research role in informing the 'make or buy' decision confronting many developing countries, both in the short and medium term. It seemed likely that certain manufacturing countries would play larger roles in generic drug production—especially those currently outside the TRIPS agreement (China, Cuba) and the handful of pharmaceutical manufacturing, least-developed countries who benefit from an additional decade of TRIPS exemptions (e.g., Bangladesh).

Competition policy. Compulsory licenses can be used as tools for combating monopoly pricing in markets, and are therefore tools of competition policy as well as IP policy. Seeing access to medicines in terms of competition policy clarified certain challenges associated with market provision and introduced policy opportunities that went beyond the compulsory licensing framework. It highlighted non-IP based obstacles to access, such as the issue of data exclusivity. It brought the question of alternative models of financing medical research and development into sharper focus (leading to the proposed Research and Development Treaty). And it opened the door to a broader reframing of the access debate as a consumer's issue with a stronger global constituency.

The final sessions of the Dialogue meeting highlighted the strategic differences—frequent at Bellagio—between those focused on exploiting existing treaty and policy frameworks, especially TRIPS, and those who saw greater potential in alternative strategies for financing and managing innovation. Several Bellagio meetings were devoted specifically to exploring the latter set of possibilities. By necessity, these were cross-thematic conversations that sought to connect developments in different fields of innovation—software development, open access publishing, and genomic research among them. For much of the series, however, the center of gravity for this conversation remained the financing of health-related research and development.

ALTERNATIVE MODELS OF INNOVATION

This exploration of alternatives began with a 2002 meeting on the 'Collective Management of Intellectual Property: Tackling the Anti-Commons.' It continued through the 2003 exploratory meeting on the Research and Development Treaty and played a role in the 2004 meeting on 'Preserving Public Goods in Health, Education, and Learning.' It concluded in 2005 with a

conference on 'Open Source Models of Innovation in the Life Sciences.'

In 2002, this was conceptually ambitious and forward-looking work. By 2005, developments in both global policy and institutional practices had begun to catch up—led in part by participants from the 2002 meeting. The potential for larger shifts in the financing and organizational practice of innovation had begun to materialize.

The 2002 conversation brought together a cross-disciplinary group to explore models of collective management of IP, ranging from the 'commons-based' management of resources, to open source models of software production, to patent pools and other cross-licensing arrangements. This broader consultation was designed to inform Rockefeller efforts to resolve a number of patent thickets or 'anti-commons' identified in the health area, including several that blocked progress on HIV/AIDS diagnostics and treatments. The Foundation was especially interested in the prospects of a 'technology trust' that could combine several patent pooling initiatives, and provide a model for freeing research and development from reliance on highly-encumbered technologies, such as exclusive patents on disease-signaling genes.

The meeting was rich in spin-off activities and collaborations, some of which became core Rockefeller IP Program investments, while others took root in other institutions and policy settings. Plans for a technology trust were not pursued by the Foundation, but have gained traction through subsequent efforts at Duke University, where they have attracted interest from the National Human Genome Research Institute. The Tropical Diseases Initiative—targeting malaria, tuberculosis, Dengue fever and other chronically neglected diseases—was launched in 2004 to test the potential of open source models of drug research in areas known for persistent market failure. The meeting also informed CAMBIA's open source biotechnology licensing project, BiOS, by connecting its work on enabling technologies in plant genetic research to other practices and practitioners in the information and life sciences. By 2005, BiOS had become a significant strategic investment of the IP program.

The most direct outcome of the 2002 meeting was the 2003 Bellagio conference on "A New Trade Framework for Supporting Health Research and Development," organized by CPTech. The meeting looked specifically at the limitations of a global IP system designed to fund research through high drug prices. It was the first step in debating and ultimately outlining

an alternative global framework for financing healthcare research and development. The meeting explored several variants on this theme which ultimately coalesced into 'small' and 'big' proposals. The more ambitious plan envisioned a global treaty that would establish minimum national obligations for investment in health R&D.

These, in turn, could be met through any system of financing. This conversation led to a series of follow-on meetings sponsored by Rockefeller and others in the course of 2004, which resulted in the drafting of the Research and Development Treaty. The principles of the treaty were adopted by the World Health Organization

Innovating Around IP

Bellagio meetings explored a range of strategies for 'delinking' innovation from the exercise of exclusive rights over knowledge. Collectively, these discussions contributed to the development of 'access to knowledge' as a positive goal that went beyond defensive actions and carefully defined exemptions to private ownership. By 2005, the basic question was not the viability of alternatives to high IPRs, but rather their translatability into new fields such as pharmaceutical development. In addition to the Research and Development Treaty described earlier, Bellagio conversations focused on:

- Open Source Collaboration. Open source usually describes large-scale, voluntaristic collaborations among software programmers or researchers, operating under a licensing framework that permits unrestricted use of a common stock of code or other technology. Stricter open source licensing models add the condition that any innovation derived from work under the license must also be released under that license. This 'viral' clause distinguishes the General Public License (GPL) used by the Free Software movement and other groups. Several public-sector biotechnology initiatives have been organized under open source principles in order to ensure that knowledge produced through them remains accessible. CAMBIA's BiOS initiative, launched in 2004, is an effort to generalize this practice in the life sciences, with special attention to circumventing IP-encumbered research technologies. CAMBIA's early efforts focus on developing an alternative to the patented use of agrobacterium as a technology for gene transfer between plants.
- Patent pooling is the practice of aggregating IP held by firms in areas where the contested or fragmented ownership of key technologies blocks the development of new technologies and markets. Shared royalties often provide the incentive structure for participation. In the US, patent pools were created for aircraft technologies during WWI and later for

- radio technologies. Today, they are used in a number of areas where collective action is required to facilitate markets for new products. The World Health Organization has worked to create a patent pool for SARS research. An HIV/AIDS patent pool has been discussed for several years, without significant progress.
- Prizes for medical innovation have attracted growing attention as a way of focusing research on unprofitable health problems—including but not limited to the 'neglected diseases' prevalent in poor countries. There is a variety of existing and proposed prize models, from conventionally-structured prizes to the 'Medical Innovation Prize Fund' developed by CPTech and proposed in a bill in the US House of Representatives in 2005. The latter envisions a shift in the larger system of research incentives from a purely market-driven approach to one based on compensating investments after the fact, based on demonstrated health benefits. The CPTech model would create a pool of money to reward investment equal to the amount spent on medical R&D in the U.S. Money would be allocated through an investment mechanism managed by insurers and other intermediaries. The system would provide a revenue-neutral deal for pharmaceutical companies in exchange for the elimination of market exclusivity on prescription drugs.
- Compensatory liability offers an alternative to intellectual property rights for fostering certain kinds of 'downstream' use of innovations. The practice of exclusive licensing of IP would be replaced with a liability regime that required users of proprietary technologies to pay a royalty when they profit from that use. The benefits of such a system would include lower transactions costs and less risk to downstream users, for whom the use of new technologies is often costly and risky. The liability model is associated primarily with the work of Jerome Reichman, one of the core Bellagio participants.

in May 2006.

The Research and Development Treaty, patent pooling, and other collective strategies for health R&D were on the agenda again in 2004, in the context of a wideranging meeting on 'Preserving Public Goods in Health, Education, and Learning.' While centrally concerned with the issue of data exclusivity and with the prospects of the treaty draft, the meeting also explored the continuing difficulty of marshalling sufficient incentives and political will for a patent-pool approach to major diseases.

A final Bellagio meeting in 2005 pulled together the diverse strands of work on alternative licensing schema in the context of growing interest in Open Source models of innovation in the life sciences. The meeting brought together representatives of several Rockefellersponsored institutions, PIPRA, IAVI, CAMBIA, CPTech, and other longstanding partners in the Bellagio process. Where in 2002 the prospect of using open source techniques and licensing beyond its initial application in software had been mostly conjectural, by 2005 it was an increasingly practical strategy with growing policy implications. Open source models of collaborative production and shared licensing had begun to find traction in a number of biotechnology fields, where the proprietary ownership of genetic knowledge and of enabling research technologies remained poorly defined and frequently contested. The emergence of CAMBIA's BiOS licensing system for plant genetic technologies, in particular, signaled a convergence of conversations between the life and information sciences. It also signaled a growing need to better understand the specific meaning and conditions of success of open source in a context in which 'open' practices were fast proliferating. What does open source signify in the life sciences? What are its conditions of success or failure? What does the effort to reconstruct a 'protected commons' through open source licensing share with other licensing efforts, such as the public-private partnerships and humanitarian licensing strategies promoted by IAVI and the Gates Foundation, or the restricted commercial licensing models favored by PIPRA? How does open source relate to publicly-funded, large-scale collaborations, such as CGIAR's 'Harvest Plus' initiative on research into staple food crops, or the HapMap project on the human genome? What is the relationship between open source as a practical solution to certain kinds of research problems and open source as a larger framework for innovation? The conference did not provide definitive answers, but did bring into contact many of the actors who will provide them in the next years.

BELLAGIO IN RETROSPECT

The successes and limitations of the Bellagio series were tied to those of the Rockefeller IP program and—at greater remove—to the research and advocacy movement it helped foster. This mutuality was the result of careful planning and constantly-renewed effort by the Foundation's IP program staff. Staff developed the broader trajectories of the series and organized many of the meetings. They also managed the complex delegation of responsibilities to ICTSD, the Meridian Institute, Call of the Earth, and other partner organizations. These partnerships were the key to extending the scope and scale of the series, and to ensuring its integration into different communities of practice. The communities, in turn, made the series their own as they used it to learn, expand their networks, and develop new projects. Less quantifiable but no less important for some participants was the halo effect of the Foundation's interest in their work. In some fields, the series lent the Foundation's reputation to emerging projects and critical positions. For policy actors and practitioners seeking traction against a dominant IP discourse, this legitimation of their work had real value.

The mission and organizational structure of the series were also connected to a vision of how to use the new Frati center. Bellagio's proximity to Geneva made it an ideal location for engaging policy actors and policy processes at WIPO, the WTO, and other UN organizations. The Geneva NGOs were able to participate more consistently than other Bellagio partners, and better mobilize actors with less direct investments in IP policy reform. This continuity was more difficult to maintain among communities separated by greater geographical distance. As the original plan for closely-sequenced meetings ran up against participant time constraints, Bellagio's greater accessibility to Geneva-based groups created a positive feedback loop that strengthened the focus on global policy.

As the final meetings made clear, many of the concerns that shaped the series in 2002 were still pressing in 2005. The dramatic increase in pro-development IP advocacy had produced only modest shifts in the interpretation of TRIPS. TRIPS+ provisions continued to proliferate through bilateral and regional agreements. 'Neglected' diseases were still neglected relative to rich-country health needs. Policies regarding access to genetic resources were still subjects of dispute and confusion.

What had changed, by 2005, was the emergence of real debate over the shape and forms of inclusion in the

global information society—and widespread recognition of the role that intellectual property policy plays in that debate. Developing countries are now much more assertive and better prepared in defending their rights, both through defensive actions to preserve their margins of policy maneuver, and through new policy proposals that define an increasingly coherent and comprehensive pro-development IP agenda. Public-sector IP management has become more sophisticated, and open source and other strategies have begun to hint at more radical shifts in the organization of innovation and knowledge flows.

These developments were among the original criteria for success for the IP program. As an early entrant into these debates, the Rockefeller Foundation assumed the risks of building a critical policy discourse and community. Not all of its efforts succeeded, and much of the work is incomplete: the defensive struggle will require continued investment; the 'Development Agenda' and 'Research and Development Treaty' are only frameworks at present; and IP management strategies developed by PIPRA to CAMBIA have only begun to be tested. The most speculative projects of 2002 are only now finding their footing. One important sign of success, however, is that the Rockefeller Foundation now has company in this space. The Bellagio meetings fostered not only a stronger community of researchers, advocates, and practitioners, but also of donors who have built on and extended the Bellagio work.

ACKNOWLEDGMENTS

This report draws primarily on documents produced for the Bellagio conferences and on interviews with current and former Rockefeller staff and with Bellagio series partners. Among the staff who generously contributed their time: Carolyn Deere, Susan Sechler, Joan Shigekawa, Anthony So, and Jacob Werksman. Among the partners: Todd Barker (Meridian Institute), Carlos Correa (South Centre), Michael Lesnick (Meridian Institute), James Love (CPTech), Catherine Monagle (Call of the Earth), and David Vivas (ICTSD)

Drafts of this report have also received generous feedback from readers, including Peter Matlon (former Rockefeller IP Program lead).