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Williams F1: fuel for innovation

Formula One™ team Williams F1 is exploring how motor racing technologies could be deployed into a range of industries.

At the Williams Technology Center in Qatar, technologies that have their origins in the high performance world of Formula One™ are being explored for commercial opportunities outside of motor sport. In this new article you can see Damien Scott, General Manager of the Technology Centre, describe how Thomson Innovation provides essential intellectual property information for understanding the global IP landscape, and how Williams might be able to benefit from entering into new markets.

Read the article and see the video: http://thomsonreuters.com/content/corporate/articles/formula_one



Predicting Nobel Prize winners

Thomson Reuters has a good track record in predicting Nobel Prize winners – and an Asia winner in the future is looking increasingly likely.

Predicting a Nobel Prize winner is no mean feat. Thomson Reuters has been doing it for years with some significant success.

In 1965, Eugene Garfield, founder of ISI, was the first to discover that Nobel Prize winners are cited 30 times more than the average scientist, and they publish five times more than the average scientists. Since 2002, Thomson Reuters has used citation data to predict 15 winners for nine prizes.

In these two interviews with citation expert David Pendlebury, you can hear more about how we predict the prize winners. David also talks about the dynamic growth of scientific enterprise in Asia, and how the growing impact of this research makes it more likely that we will see prize winners from this region in the future.

Predicting Nobel Prize winners:

<http://www.youtube.com/user/ThomsonReutersIIFL#p/u/15/xHyYOcWpiyl>

Will Asia ever scoop a Nobel Prize in science?:

<http://www.youtube.com/user/ThomsonReutersIIFL#p/u/13/bhCbNVCh6lQ>



Who are the global leaders in automotive innovation?

Our IP Market Report on automotive industry innovation shows sharp growth in alternative power, vehicle security systems and vehicle navigation systems, and also tells you who is leading the charge in reviving this struggling industry.

The recession has not been kind to the automobile industry. With each new headline reporting a missed revenue target or another closed dealership comes the question: What does this mean for the future of innovation in the auto industry? Who are the global leaders in auto industry innovation, and what form is that innovation taking?

To find out, the IP Solutions business of Thomson Reuters tracked hot spots of auto industry innovation through the first quarter of 2009, analyzing global innovations in technology that have shown the sharpest growth over the past five years. By tracking the total numbers of unique inventions in published patent applications and granted patents between 2003 and 2009, researchers were able to identify segments of the R&D landscape that are receiving growing attention from auto industry innovators even in the midst of a worldwide recession. The following IP Market Report summarizes the findings of that research, noting that some of the automotive technologies showing the sharpest growth have been alternative power, vehicle security systems and vehicle navigation systems.

Data for this IP Market Report were aggregated using the Thomson Reuters *Derwent World Patents Index (DWPI)* to identify global innovation activity in the automobile industry. Within each category, researchers analyzed the total number of unique inventions issued in published patent applications and granted patents in 2003 and 2008 through the first quarter of 2009. Results from both time periods were then compared to determine overall growth over the last five years.

Download the Auto Industry Report free at <http://ip.thomsonreuters.com/info/autoinnovation09/>



Coming soon in 3-D...everything

Our new report on 3-D technology tracks unique inventions and highlights areas with the sharpest growth.

3-D interest does not stop in Hollywood. According to an analysis of world patent activity published by the IP Solutions business of Thomson Reuters, consumers will soon be able to experience 3-D technology on their televisions at home. The report tracks unique inventions published in patent applications and granted patents from 2003 to 2009 to identify the areas showing the sharpest growth over the last five years.

The findings include:

- **3-D TV in your living room:** It will only be a matter of time before you can enjoy 3-D television programs from your couch. Between 2003 and 2008, patent activity in the 3-D television space grew by 69 percent. Breakthrough new technologies include lenticular lenses, which create a more natural 3-D viewing experience without the need for special glasses.
- **Capture moments with 3-D photos:** 3-D photographic technology is also on the rise; it has grown by 57 percent between 2003 and 2009 as the digital camera industry works to combat declines in other areas.
- **3-D Glasses are big business:** A great deal of 3-D cinema innovation has less to do with movie production than it does with ancillary products. Between 2003 and 2008, patent activity in the 3-D cinema space grew by 45 percent. Areas receiving the most attention include: projection systems, specialized glasses, cleaning apparatus and registration systems for glasses.

The data in this report was compiled using the Thomson Reuters *Derwent World Patents Index (DWPI)* database, where patent activity is used as a benchmark for innovation. The research aggregates granted patents and published applications (examined and unexamined) in 2003 and 2008 through the first quarter of 2009. Results from both time periods were then compared to determine the overall growth trend over the last five years.

View the full report at <http://ip.thomsonreuters.com/info/3D/>



Expanding the role of the professional librarian

How one research institution has expanded the role of the professional librarian to help in the fight against cancer.

As Senior Director for Education and Information Services at the Fox Chase Cancer Center in Philadelphia, USA, Karen Albert's role is to ensure that all 2,000 of the Center's healthcare professionals and researchers get the maximum value from their information resources. She is in charge of not only the library, but of several other departments including Continuing Medical Education, Multi-media and Creative Services for graphic arts, photography and video support services; as well as implementing a new learning management system for online training.

In this Intelligent Information for Life article, Karen describes the challenges and rewards of providing high quality information, developing educational content and helping scientists navigate their way through the paper submission process. This includes using *EndNote* to pull together a staff publications database, and *Micromedex* to find clinical information on specific drugs.

Read the full article: <http://intelligentinformationforlife.com/albert/>



Building a world-class database on the modern research institution

The Global Institutional Profiles Project will create data-driven portraits of globally significant research institutions.

Thomson Reuters announced in January that it has begun working with thousands of institutions and research facilities to produce a one-of-a-kind resource. This initiative, the Global Institutional Profiles Project, will create data-driven portraits of globally significant research institutions - combining peer review, scholarly outputs, citation patterns, funding levels, and faculty characteristics in one comprehensive database. The Profiles Project rests on the principle that one size does not fit all—as the world continues to flatten and specialize, profile databases must broaden in scope, deepen in content, and become increasingly flexible.

The resulting dataset can be packaged and analyzed to different specifications, allowing organizations to receive custom information for their specific needs. The Times Higher Education, a London-based weekly newspaper that covers higher education issues, is the first to request a customized dataset to produce an improved version of their annual World University Rankings. The publication will work closely with Thomson Reuters to create a balanced, transparent methodology to support their influential rankings.

Our aim with the Profiles Project, which includes our work with Times Higher Education's World University Rankings, is to develop a data source that provides the best informed and most effective resource to build profiles of universities and research-based institutions around the world.

Prior to launching the formal data gathering for the 2010 Global Institutional Profiles Project, Thomson Reuters circulated an open survey to opinion leaders and industry stakeholders soliciting feedback on current ranking and other institutional comparison services. The opinion survey will help inform the methodology for our 2010 data gathering and analysis.

The Profiles Project website enables visitors to navigate the initiative's major stages, including the opinion survey, to learn more about the ongoing process. The website is updated as new stages commence or resolve, and you can register for email alerts here. As the opinion survey nears completion, the summary report will be made available for download (Q1 of 2010).

Additional information:

Global Institutional Profiles Project: <http://science.thomsonreuters.com/globalprofilesproject/>

Global Institutional Profiles Project email alerts: <http://science.thomsonreuters.com/info/gipp-update/>

Times Higher Education's World University Rankings:

<http://www.timeshighereducation.co.uk/story.asp?sectioncode=26&storycode=408908&navcode=105>

Hong Kong Scholars Hub

The Hong Kong Scholars Hub is overcoming obstacles to research discovery, including the problem of differentiating output from researchers with the same name.

We interviewed David Palmer, Systems Librarian at The University of Hong Kong (HKU), to learn more about development of the Hong Kong Scholars Hub and the challenges this has highlighted.

The Hong Kong Scholars Hub provides simple, open access to the intellectual output of HKU, which publishes around 3,000 papers a year in scholarly peer reviewed journals. The Hub currently captures a small percentage of these because there is no deposit policy from HKU, and if the author agrees to placing his work online via the Hub, the publisher must also permit this.

Searching in *Web of Science* for Chinese names is a particular obstacle for HKU researchers, and converting names from Chinese characters into Roman text has been a formidable obstacle to research discovery: 20 researchers could have different Chinese script names, but when Romanized they all use the same form: "Chan, KW". David Palmer sought help from Thomson Reuters to tackle the problem, and HKU's subsequent rollout of *ResearcherID* for all HKU scholars was the first of its kind.

David's team has also implemented the *Web of Science* API so that articles in the Hub matching those in *Web of Science* will now display the citation counts from *Web of Science*. Future plans include bringing in more article and author level metrics from other databases, social network tagging by scientists and coverage of blogs written by scientists.

Read more about development of the Hong Kong Scholars Hub:

<http://intelligentinformationforlife.com/palmer/>



Driving high performance intellectual property

Please join us for one-day, complimentary Global IP Leader Exchanges focused on IP strategies and best practices.

As the world economy continues on its path to recovery, many companies are focusing on how IP will play its part in their future growth. No matter what direction you take, knowing the best ways to orchestrate intellectual property activities across your organization will help you maximize operational efficiencies and drive high performance IP.

Please join us for an exciting one-day, complimentary Global IP Leader Exchange focused on just this: IP strategies and best practices. Find out how other patent and trademark leaders are dealing with the critical IP challenges facing their organizations –and learn how to put their best strategies to work for you.

The event will include:

- Illuminating presentations from industry practitioners on their innovative initiatives
- Strategic and practical ideas that you can take back to your business
- Roundtable discussions with IP thought leaders
- Opportunities to share ideas and network with peers

Whether you are a professional in the field of patents or trademarks, you will find great value by investing a day of your time attending one of our Global IP Leader Exchanges. Events will be held in the following locations

Chicago, IL, April 8

London, April 22

Munich, April 29

San Jose, CA, May 13

Paris, France, May 27

New York, NY, June 17

Tokyo, Japan, Fall 2010

Register today at <http://ipleaderexchanges.com>



Pharmaceutical trademarks: navigating through the FDA's pilot program

Pharmaceutical trademark creation and clearance continues to be one of the most difficult and challenging areas of trademark law.

The Food and Drug Administration (FDA) recently initiated a 2-year Pilot Program under PDUFA IV. The intent of the program is to enable participating pharmaceutical firms to evaluate proposed pharmaceutical marks and submit the data generated from those evaluations to the FDA for review.

Submitting a trademark to the FDA warrants questions: What supporting data is needed and accepted when proposing a mark? What issues might arise, and how can they be averted?

Join Thomson CompuMark for an on-demand pharmaceutical trademark webinar featuring industry leaders Robert E. Lee, Jr. (Assistant General Patent Counsel, Patents, Trademarks and Copyright for Eli Lilly and Company), James Thomas (Partner with Troutman Sanders LLP), and Maury M. Tepper III (Tepper & Eyster, PLLC) as they review the FDA pilot program, outline the requirements for submission and discuss what the changes will mean in clearing new pharmaceutical marks. They also present various approaches to trademark development and evaluation in light of the FDA's views.

Watch the on-demand webinar at <http://thenewsaeigis.com/recs/TCM-DEC.swf>



The promise of imaging biomarkers

A new Thomson Reuters white paper provides a snapshot of imaging biomarkers in research and clinical use, examining challenges and identifying promising avenues for progress.

Biochemical and molecular markers have revolutionized medicine and drug development, giving clinicians and researchers the opportunity to infer biological states in patients and in response to drug interventions. Imaging biomarkers are now coming into their own, offering earlier detection of some diseases than molecular markers, and enabling practitioners to see into the body without the need for invasive procedures. They are also enabling researchers to see in detail for the first time how candidate drugs are behaving: from determining the percentage of receptors occupied by a drug on target cells, to looking at a drug's ability to cross the blood/brain barrier. This in turn can save time and money at the drug development lab bench. It is no exaggeration to say that imaging biomarkers are promising to revolutionize basic research, drug development, and treatment.

The new white paper from Thomson Reuters – The promise of imaging biomarkers – discusses challenges to imaging biomarkers reaching their full potential. These include standardization, a regulatory policy in its infancy, and the sheer volume of biomarker data. The paper also describes the Thomson Reuters approach to developing BIOMARKERcenter™, a comprehensive database of biomarkers that covers all key biomarker uses at every stage of drug R&D.

Download the white paper (registration required): go.thomsonreuters.com/imaging

Natural products research at the NIH

Interview with David J. Newman, Chief, Natural Products Branch
National Cancer Institute-Frederick Cancer Research and Development Center

Pharma Matters interviewed David J. Newman, Chief of the NCI Natural Products Branch of the Developmental Therapeutics Program, to gain an insight into the chemistry behind his research into natural products.

Newman trained originally as an industrial analytical chemist, then received his M.Sc. (1963) in synthetic Organic Chemistry (University of Liverpool, U.K.). After some years in the U.K. chemical industry he received his D.Phil. (1968) in Microbial Chemistry (University of Sussex, U.K.). Following postdoctoral studies (Biochemistry Department at the University of Georgia), he joined SK&F Laboratories in Philadelphia, PA, and spent 15 years in biological and antibiotic discovery chemistry. After six years in various biotechnology and pharmaceutical companies working mainly in marine natural products, he joined the Natural Products Branch (NPB) in 1991 as a chemist responsible for the marine and microbial collection programs and was appointed Chief in 2006. Has published over 100 research papers, reviews and book chapters, and holds 18 patents.

Q. What is your approach to natural products (NPs)?

The remit of the NPB is to find novel leads to agents that may be of utility as anti-tumour drugs. Note, not drugs per se at this stage, but structures be they old or new that have the biological potential to lead to drug candidates. To do this, we have, over the years, run collections for plants, microbes and marine organisms. We currently have over 140,000 plant, 30,000 marine and roughly 30,000 microbial extracts.

Q. What day-to-day chemistry do you do?

Both basic and at times rather esoteric bioactivity-driven isolation processes that rely extensively on HPLC-MS and UHPLC-MALDI-TOF instrumentation, coupled to extensive databases, both in-house and commercial. Access to standard spectroscopic instruments is part of the process, though we also have extensive instrumentation attached to the HPLC-MS trains in addition to the mass spec.

Q. How does this research mesh with NCI aims?

The Developmental Therapeutics Program which NPB is part of, has the express aims of discovering and developing up through preclinical trials, agents from both natural and synthetic sources that have the potential to enter clinical trials as potential antitumour agents. There is another Program, known by the acronym CTE P (Clinical Trials Evaluation Program), part of whose job is to take molecules that we produce and conduct clinical trials on them. We accept molecules from any source and carry them

through the system at Uncle Sam's expense, even up through Phase II clinical trials. For the molecules that come in at the early DTP level, they all go through the 60 human cell line panel and if justified into early in vivo assays with no IP being taken by NCI. NPs definitely mesh with NCI's aims.

Q. How do you assess NPs?

Part of the initial process at the crude extract stage is an assessment of their "cytotoxicity" in the 60 cell line screen at 1 dose level. Those above a certain nominal level then proceed to the regular 5 dose 60 cell line screen. A decision is then made as to dropping it or continuing.

Q. What challenges do you face in general?

Access to countries in order to collect materials for investigation. What has occurred is what my old Chief (Gordon Cragg) and I have called the "Myth of Green Gold", where totally unrealistic expectations have been foisted upon developing countries, often by developed country organizations, such that the idea that a patent means a drug with millions of dollars of income has become paramount. Nothing could be further from the truth, but this has caused immense problems as legal and political systems try to put in place laws that would permit collections to be investigated. Secondly, there is a perception that NPs are "old hat" and that combinatorial chemical processes coupled to high-throughput screening has made NP investigation obsolete, not cutting edge! In the case of HTS plus combinatorial chemistry as a substitute for NP discovery, currently I know of only one approved drug in any disease that is a de novo combinatorial product and that is sorafenib. Combinatorial chemistry is absolutely magnificent for "lead optimization" but unless it uses focused libraries, a lot of which now closely resemble NPs in terms of their elemental composition, numbers of rings and presence of multiple chiral centres, they simply occupy space on a test plate.

Q. How do you get into the drug pipeline?

If it is our compound we will competitively licence the molecule for further development. This also occurs if it is not a patentable compound (such as Taxol) where no company would perform clinical trials. This compound was discovered under one of our earlier collection programs where we utilized the skills of academic and non-profit chemists to isolate and identify NPs. The material was taken through Phase II clinical trials by NCI and collaborators and once it had shown activity in ovarian cancer in female patients, it was licensed to Bristol Myers Squibb.

Q. What highlights have you seen?

Obviously, I cannot go into compounds that are still in the early development pipeline, but Taxol is one highlight. A more recent one is the work that we did with Eisai America on Eribulin derived from a very potent marine sponge metabolite known as halichondrin B. We had to extract 1 metric tonne of the

sponge to get 300 milligrams of hali B working in conjunction with New Zealand government scientists and academic chemists. It is now in Phase III. Another is an inhibitor of heat shock protein 90. When NCI intramural scientists showed that HSP 90 was inhibited by an old but well-known antiparasitic agent known as geldanamycin, NPB had the problem of finding a producing microbial culture and then generating over 3 kg of pure geldanamycin in order to permit other chemistry groups within DTP to produce what is now known as 17-allylamino-geldanamycin, which was licensed, together with other compounds and information to Kosan Pharmaceuticals (now part of BMS). This first signal transduction agent is currently in Phase III.

Q. Can traditional medicine help?

Provided the data is rigorous and not anecdotal, such information can lead us to areas that we have not investigated in the past. If multiple preparations are being assessed from the nominally same plant but from perhaps different areas, climates, time of year etc., then there must be adequate evidence of chemical content (say an HPLC fingerprint) and biological activity to compare with the active fingerprint. Sadly, this is lacking in a very large number of cases; faith is not a substitute for evidence under those conditions.

Q. What's the future of NP research?

Investigating NP chemical structures that are potent agents in your disease of choice will lead you to structures that are the products of aeons of experimentation and can be utilized to design simpler molecules with less toxicity and perhaps better pharmaceutical properties. Mother Nature has almost four billion years of evolution to practice her biological chemistry in designing molecules that interact with proteins. On an active coral reef, we find extremely potent agents that kill cells; hali B is one example, Yondelis from the tunicate *E. turbinata* another. I often joke that, on a coral reef, WMDs are alive and well.



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Can China retain its API sourcing appeal?

Robert Kennedy, Manager Industry Research Newport

Chinese companies are gearing up to supply newer pharmaceutical ingredients to the regulated markets of the West.

For many years, China has been an important supplier of intermediates and older off-patent molecules. Robert Kennedy's analysis, published in the year-end [Scrip 100 issue](#), reveals that it has integrated itself into the global supply chain for both innovator pharma and generics companies, and is no longer merely a low-cost threat. A striking number of Chinese companies are now gearing up to supply newer molecules, and are slowly becoming involved in the development of non-infringing processes in support of patent challenges.

Read the full report:

http://thomsonreuters.com/content/PDF/scientific/hub/can_China_retain_api_sourcing_appeal.pdf



The cutting edge of chemistry

Our new free report in the Pharma Matters series delivers a quarterly review of the latest chemistry shaping today's drug discovery and development pipeline.

Chemistry is one of the key drivers of drug discovery and innovation - making it more important than ever to keep up with the latest chemistry news.

The Cutting Edge of Chemistry, our newest FREE report in the Pharma Matters series, draws on expert insight and strategic data from *Prous Science Integrity*[®] - a unique database integrating biological, chemical and pharmacological data. *The Cutting Edge of Chemistry* helps you stay on the leading edge of chemistry innovation.

In this first issue:

- **New organic synthesis schemes** - keep in touch with advances in synthesis techniques - this issue includes intriguing new syntheses for two osteoporosis drugs from GlaxoSmithKline and Merck & Co.
- **The newest molecules** - highlighting new molecular entities of interest.
- **Chemical scaffolds** - illustrating newly synthesized or natural product-derived templates laying the groundwork for discovery of new therapeutic agents.
- **Insights into new mechanisms of action** - leading to oncolytic drug development.

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Prous Science Integrity is populated, refined, and supported by PhD scientists to meet the specific needs of drug discovery chemists. It connects biological, chemical and pharmacological data, to help chemists make confident decisions, keep research focused, and foster innovation.



Warming planet, hot research

Christopher King, Thomson Reuters

Science Watch examines highly cited research on climate change.

The 2009 United Nations Summit on Climate Change attracted more than 100 world leaders including the heads of state of both the United States and China. This reflected the growing international concern over human impact on climate, and over the political and economic implications of climate change.

Science Watch[®] has examined highly cited research on climate change over the last decade, using a special extraction of Thomson Reuters-indexed literature published and cited between 1999 and the spring of 2009. This search produced over 28,000 papers, from which *Science Watch* identified the most-cited institutions, authors, papers and journals.

The most-cited paper in the survey is a 2002 *Nature* report, "Ecological responses to recent climate change," (G.R. Walther, *et al.*, 416: 389-95, 2002), now cited approximately 1,100 times. *Nature* and *Science* post comparable citation tallies for their climate-themed papers, while *Global Change Biology* earns top citation honors among specialty journals devoted to climate change and related topics.

The survey's most-cited author (and also the contributor to the highest number of papers in this climate-change dataset, with 57) is F. Stuart (Terry) Chapin of the University of Alaska. His top paper, with more than 800 citations, is from *Science*: "Biodiversity: Global biodiversity scenarios for the year 2100," (O.E. Sala, *et al.*, 287: 1770-4, 2000).

The National Center for Atmospheric Research, based in Boulder, Colorado, registers the highest citation total: more than 11,000 collective cites to over 360 papers, the most cited of which is a *Science* paper on climate change and its impact on coral reefs.

Read the full report: <http://sciencewatch.com/ana/fea/09novdecFea/>



ORCID initiative launched to resolve researcher name ambiguity

The Open Researcher Contributor Identification (ORCID) initiative represents a community effort to establish an open, independent registry that is adopted and embraced as the industry's de facto standard.

On December 1, 2009, leading members from the research community announced their intent to collaborate to resolve the author name ambiguity problem in scholarly communication. The Open Researcher Contributor Identification (ORCID) initiative represents a community effort to establish an open, independent registry that is adopted and embraced as the industry's *de facto* standard.

Accurate identification of researchers and their work is one of the pillars for the transition from science to e-Science, wherein scholarly publications can be mined to spot links and ideas hidden in the ever-growing volume of scholarly literature. A disambiguated set of authors will allow new services and benefits to be built for the research community by all stakeholders in scholarly communication: from commercial actors to non-profit organizations, from governments to universities.

Thomson Reuters and Nature Publishing Group convened the first *Name Identifier Summit* in Cambridge, MA on Monday, November 9, where a cross-section of the research community explored approaches to address name ambiguity. With over 30 organizations already participating in ORCID, the initiative is moving ahead with broad stakeholder participation. Although the online registration form currently targets member organizations, ORCID intends to open channels for individual contribution in the future.

Persistent name ambiguity continues to disrupt scholarly networks, and industry leaders welcome the community effort to find and implement a global solution: "At the dawn of a new age of discoveries in physics, where experiments that probe the structure of the universe are carried out by international teams of scientists that number in the thousands, correct attribution of research contribution is of crucial importance. I welcome this joint initiative of stakeholders in scholarly communication to work together on these issues." said Prof. Rolf Heuer, Director General of CERN.

Find out more:

Open Researcher Contributor Identification (ORCID) initiative: <http://www.orcid.org/>

Member gallery: <http://www.orcid.org/gallery.php>

Register your organization's interest: <http://orcid.securesites.net/memberorg-form/index.php>

Accomplished in technology: Taiwan's research upswing

Christopher King, Thomson Reuters

A detailed examination of research from Taiwan reveals an increasing participation in world science.

Science Watch used the Thomson Reuters *National Science Indicators* database to measure Taiwan's annual output of papers in journals indexed by Thomson Reuters between 1990 and 2008.

According to the main fields covered in *National Science Indicators*, the nation's concentration is clearly in the physical sciences. Taiwan's greatest presence in any broad specialty area is in Engineering: papers listing at least one Taiwan-based institution account for 4.23 per cent of publications indexed between 2004 and 2008. Computer Science is next (3.48 per cent), followed by Materials Science (2.86 per cent) and Physics (2.45 per cent). A closer look at this research output shows that Engineering: Manufacturing leads the way with 1,670 papers that constitute more than eight per cent of the field for 2004 to 2008. Operations Research & Management is next, with Taiwan's representation topping seven per cent of Thomson Reuters-indexed papers during the five-year period.

In fields outside the physical sciences, Taiwan's output in three fields—Biology & Biochemistry, Pharmacology & Toxicology, and Molecular Biology & Genetics— has risen modestly. In contrast, output in clinical medicine has shown more than a tenfold increase from 350 Thomson Reuters-indexed papers in 1990 to 3,928 in 2008. Large increases were also seen in Psychiatry/Psychology, Economics & Business, and papers in general Social Sciences.

Although rising in output, Taiwan still has some progress to make in terms of citation impact: with a couple of exceptions, the country's cites-per-paper figure is below the world average.

Read the full report: <http://sciencewatch.com/ana/fea/10janfebFea/>



Russia struggles to retain last-century prominence in scientific research

Our new report reveals changes in Russia's scientific output and examines opportunities for driving future growth.

Russia's scientific output has been largely in decline since 1994, and recent uptake still falls within flat relative growth. The new report from Thomson Reuters reveals a broad atrophy that extends to core strengths of physics and space science. However, Russia has maintained and deepened global connections, and such networks, the report concludes, are critical to recapturing its position.

Download the report at <http://science.thomsonreuters.com/info/grr-russia/>