## FRANKLIN PIERCE LAW CENTER

## Germeshausen Center Newsletter

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Produced by The Kenneth J. Germeshausen Center for the Law of Innovation and Entrepreneurship and Student Intellectual Property Law Association

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The Germeshausen Center, created in 1985 through the generosity of Kenneth J. and Pauline Germeshausen, is the umbrella organization for Franklin Pierce Law Center's specialization and policy studies in the legal protection, management and transfer of intellectual property, especially as they relate to the commercialization of technology.

The Germeshausen Center Newsletter is published semi-annually for the alumni/ae, students and friends of Franklin Pierce Law Center. Our readers are encouraged to send news, photos, comments or letters to:

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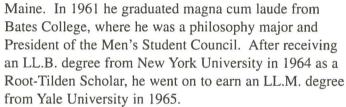
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# - PROFILE DEAN ROBERT VILES Shaping a Different Law School

Since 1973 Bob Viles has served FPLC as Associate Dean, Dean and Treasurer, and Dean and President. Under his assiduous guidance and nurture over more than two decades, FPLC shaped its innovative brand of legal education and became a powerhouse in intellectual property education and training.

Bob Viles was born and grew up in central



From 1965 until 1973 Bob was a member of the faculty of the College of Law of the University of Lexington, Kentucky. He advanced from Assistant Professor to Associate Professor with tenure, and from bachelorhood to marriage to Bruce Earman, a Virginia native, in 1969. For three years he was the Law College's first Assistant Dean. Thereafter he held a joint appointment with UK's College of Social Professions, having been a conscientious teacher about (but noncombatant in) the War on Poverty in Appalachia during the 1960's.

Bob was Research Director of the Commission on the Bankruptcy Laws of the United States in 1972-73. The Commission produced a model bankruptcy law that was the forerunner of the Bankruptcy Code of 1978, still in effect today. He remains a sometime consultant and expert witness on bankruptcy law, especially public utility reorganization under the Bankruptcy Code. Bob has been a member of the National Bankruptcy Conference, a U.S. organization of bankruptcy lawyers, judges, and teachers, since 1977. For several years he chaired the NBC's Working Group on Environmental Problems.

Bob and Bruce came to New Hampshire in 1973.

Since then he has been on the faculty of FPLC, and she has practiced law in Concord. The Viles, who have no children, moved from Sanbornton, to Concord in 1979.

Bob started as Associate Dean of FPLC, becoming Dean and Treasurer when the Center was established independently from Franklin Pierce College in 1977. In 1992 he succeeded Robert Rines as President of the Law Center.

As Professor of Law since his arrival at FPLC, Bob has taught courses in Contract Law, Commercial Paper, Debtor-Creditor Relations and Negotiations. Currently he teaches Contract Design: Understanding, Designing, Negotiating, and Documenting Contracts. His own creation, it is a unique course required of first-year students.

During New York University Law School's annual alumni celebration on April 28-30, 1994, Bob was one of two graduates honored with a Legal Teaching Award. He was recognized for his role in shaping the Law Center since its inception. In presenting the award, NYU Dean John Sexton pointed out that, as dean of FPLC for the past 18 years, he is one of the senior law school deans in the U.S. — where the average law dean's tenure is less than three years.

Primus inter pares, Bob believes in allowing faculty and staff flexibility to create their own jobs and do that which they do best. No doubt, this is a contributing factor to his enduring success as a law school dean.

## INTELLECTUAL PROPERTY PROTECTION IN MEXICO AND CENTRAL AMERICA

Franklin Pierce Law Center Concord, New Hampshire September 20-21, 1996

This program, under the auspices of the Germeshausen Center for the Law of Innovation and Entreprenuership, will track the changes taking place and lingering problems in the intellectual property regimes of Mexico and Central America (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama). Presenters will include distinguished members of the public and private sector from Central America, Mexico, and the United States.

For information, please contact Carol Ruh, Germeshausen Center for the Law of Innovation and Entreprenuership. Phone: (603) 228-1541.

## The Germeshausen Center Celebrates 10<sup>th</sup> Anniversary

Conveniently timed between the fall meeting of Franklin Pierce Law Center's Advisory Committee for Intellectual Property (ACIP), on Friday, November 10, 1995 and the Fifth Patent System Major Problems (PSMP) Conference, on Saturday, November 11, 1995, both held at FPLC, the Kenneth J. Germeshausen Center for the Law of Innovation and Entrepreneurship celebrated its Tenth Anniversary on the evening of Friday, November 10, 1995.

Almost 40 invited guests participated, including student representatives, faculty and VIP's in town to attend the PSMP Conference. After feasting on filet mignon, the audience was first treated to an address by Bob Viles, President and Dean of FPLC, who gave a "brief tour" of the history of the Germeshausen Center, how it was launched in 1985 with a \$1 million gift from Ken and Pauline Germeshausen and how it was shaped by the two occupants of the David Rines Chair, Homer Blair and Karl Jorda. Bob first recalled how, through David and Bob Rines' long association with Ken Germeshausen, the magnificent gift from the Germeshausens came about, and what it meant for FPLC. The gift was to fund scholarships and loan endowments, not yet realized, an innovation clinic, now off and running under Professors Bill Murphy and Chris Blank, and the David Rines Chair, to be held by the Director of the Germeshausen Center, which by now has far surpassed expectations.

Homer Blair joined FPLC in 1985 as the first David Rines Professor of Intellectual Property Law and Industrial Innovation. He was greatly instrumental, with Professor Bill Hennessey playing a strong supporting role, in shaping the IP curriculum and the MIP (Master of IP) degree program.

When Homer Blair left for retirement in Texas in 1989, Karl Jorda came on board. While Homer was "Mr. Inside and master of the daily memo," Karl was "Mr. Outside and master of the extended trip." While putting different marks on the David Rines Chair, both had over 30 years of corporate IP experience, which is exactly the experience sought by FPLC for its distinctive brand of IP education and training. Homer taught IP Licensing in the Fall and Spring Semesters as well as in the IP Summer Institute (IPSI) while Karl teaches IP Licensing in the Fall Semester and in IPSI and IP Management in the Spring Semester. In 1992 Karl instituted a successful one-week

annual Advanced Licensing Institute with prominent speakers to conclude IPSI. In addition, Bob referred to Karl as a "tireless and peripatetic traveler" carrying the FPLC banner afar and as an "indefatigable ambassador" of FPLC to professional associations. He singled out his services to WIPO (World Intellectual Property Organization) in Geneva as helpful in establishing a solid relationship with WIPO, which led to WIPO's sponsorship of developing country officials in FPLC's MIP Program. Concluding, Bob emphasized again how these results could not have come about without the very generous gift from the Germeshausens.

William Keefauver, newly appointed to FPLC's Executive Committee (see article page 5), was the next speaker. Decrying a return of an isolationist tendency manifested by claims that the U.S. law is sacrosanct and any changes would amount to a sell-out, Bill pointed out that in this day and age of globalization of markets, IP lawyers must be active in the international field and familiar with foreign IP laws. "Reduction of frictional points and harmonization between IP laws, is therefore very important. We also must recognize that good ideas can come from abroad and must reach accommodations and make adjustments in our laws. Market forces speed up globalization and are leading to new international treaties. Going along does not put the U.S. in second place, as some isolationist colleagues charge. Far from it!" Bill concluded by pointing out that all aspects of IP have international dimensions, that we can't remain an island of special IP laws and that the profession does not fulfill its duty to clients without global thinking.

At this point in the festivities, Bob Viles read and presented to Karl Jorda a citation with the following text:

The Executive Board and Faculty of Franklin Pierce Law Center Recognize Karl F. Jorda, Director of the Germeshausen Center for the Law of Innovation and Entrepreneurship and David Rines Professor of Intellectual Property and Industrial Innovation, on the occasion of the Tenth Anniversary of the Germeshausen Center for his steadfast dedication to the interests of the Law Center through tirelessly spreading its reputation in intellectual property law throughout the world, enthusiastically identifying the Law Center with his

(...continued on next page)

## Law Center Elects Two Distinguished American Patent Lawyers to its Governing Board

Robert B. Benson, formerly President of the American Intellectual Property Law Association and Chief Operating Officer of the Allis-Chalmers Corporation, and William L. Keefauver, retired Counsel of Bell Laboratories and past President of the U.S. group of the International Association for the Protection of Intellectual



Robert Benson

Property, have been elected to the Franklin Pierce Law Center Governing Board.

Mr. Benson succeeds Robert H. Rines as board chair. Mr. Rines, the principle founder of the school, is an inventor and lawyer who was inducted into the U.S. Inventors Hall of Fame in 1994 in recognition of his advance in science and technology. Mr. Rines continues to serve as Chairman of the Board Emeritus..

Mr. Benson received his B.S. in engineering from Purdue University, and his J.D. from Indiana University. After graduating, he served as Patent Counsel and Associate General Counsel for Allis-Chalmers

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prominence in the U.S. and international intellectual property communities, freely sharing his expertise in protecting, transferring, and enforcing intellectual property rights around the globe, and masterfully teaching students from many countries the art and skill of licensing and managing intellectual property.

November 10, 1995

In accepting this citation, which came as a total surprise to him, Karl expressed eternal gratitude to Ken and Pauline Germeshausen for providing the resources to enable the Germeshausen Center's many-faceted activities and manifold accomplishments. He also thanked FPLC for the special opportunity to join its faculty, the FPLC faculty and staff for their supportiveness and Homer Blair for blazing the trail and making his entry into academia easier.

Corporation, President of U.S. Fluidcarbon, Inc., and President and Chief Operating Officer of Allis-Chalmers, itself. He founded the Association of Corporate Patent Counsel, chaired both the Wisconsin and American Bar Association's Section on Patent, Trademark and Copyright Law and served as president of the American Intellectual Property Law Association. Mr. Benson played a significant role in the legislation that created the Court of

Appeals for the Federal Circuit.

Mr. Keefauver received a degree in electrical engineering from Pennsylvania State University and a J.D. from the New York University School of Law. Formerly, he was Vice President-Law for AT&T. Mr. Keefauver also served as Bell Labs' Vice President and General Counsel. Mr. Keefauver has been President



William L. Keefauver

of the International Association for the Protection of Intellectual Property and Chairman of the American Bar Association's Section of Patents, Trademarks and Copyrights. Currently he is a consultant to corporations and an advisor to Penn State University's School of Engineering. He currently serves on the advisory board for the U.S.T.R. and the Department of Commerce on intellectual property matters in trade agreements such as GATT and NAFTA.

New Hampshire's law school, Franklin Pierce Law Center enjoys a broad reputation in public interest law and is proud of the role its students and faculty play in advancing the economic and social well being of Concord and the surrounding communities. The Law Center also holds national standing in the field of intellectual property law. Students, researchers and professors from around the world are attracted the the Law Center for its extensive course offerings in the laws of patents, trademarks, copyrights, licensing and commercialization. U.S. News & World Report has consistently ranked FPLC among the top intellectual property law schools in America. FPLC is an independent not-for-profit educational institution, fully accredited by the American Bar Association.

## A New Model for Practicing Lawyers Teaching Professional Skills in Law School

by Dan Cahoy

Law schools are under increasing pressure to equip new graduates with the professional skills needed to earn their way when they enter practice. The prevailing law school models for professional skills training (live-client clinics and intense simulation-based training) require low student-to-faculty ratios. Low ratios substantially add to educational cost if full-time teachers provide the training. Raising tuition to cover the higher cost is increasingly difficult in the face of graduates' mushrooming school loan debt loads.

One way to escape this circle is to engage practicing lawyers in skills instruction integrated into a law school's course of study. Franklin Pierce Law Center in Concord, N.H., a leader in intellectual property education, has devised a way to do so. The school's new program in Advanced Patent Prosecution brings practicing patent attorneys into the law school to engage students in a mentoring relationship that resembles the first few months of work in a law firm or company. The instructors, who come from Washington, DC, Boston and Portland, Maine as well as New Hampshire, meet with small groups of about five second and third year students. FPLC Dean Robert Viles says, "The lawyer-instructors are contributing their time out of an interest in teaching and a sense of responsibility to legal education. We're making their contributions easier by compacting in the law school the ways lawyers teach new associates in law offices."

Designed and introduced by alumnus Benjamin Hauptman, a patent lawyer in Alexandria, Virginia who graduated from Franklin Pierce in 1980, the Advanced Patent Prosecution program follows a simple format: each lawyer/instructor interviews and selects students with the same technical background (typically electrical or mechanical engineering, chemistry, or biotechnology). The instructor then assigns the students facts on which to build a patent application, often facts from patent applications that they have prepared and have culminated in an issued patent. "The idea is to give students a hands-on opportunity to learn the art of patent application," says Hauptman. Hauptman adds that he designed the format to replicate the experience a new lawyer would receive in his or her first job. "The standard of review for assignments," he says "is how a partner in a law firm would evaluate the work of an associate."

The Advanced Patent Prosecution program responds

to the marketplace and focuses on the abilities that employers want in their new associates. "Intellectual Property and patent practice are experiencing explosive growth," Hauptman observes, "and in order to keep up with quality patent services, firms [and companies] need good people. This program fulfills that need to the extent that law schools are capable by minimizing training time and maximizing output." Hauptman stresses the program's low student-to-teacher ratio as providing the opportunity for instructors to pay special attention to each student. "It's the best way to assure you've provided a good grounding in the basics of writing a patent application," says Hauptman.

Although all instructors meet their students regularly for 28 hours during the semester, each instructor tailors the frequency and duration of the meetings to his or her own schedule and vision for the class. Frequency varies from weekly for nearby instructors, to bi-weekly for instructors from the Boston area, to extended monthly sessions for instructors from the Washington, DC area, where many lawyers are clustered around the Patent and Trademark Office. During off weeks, communication is continuous by conference call, fax, and the internet. All instructors follow Hauptman's basic design, but teaching methods vary from instructor to instructor. David Brook, a senior partner in Hamilton, Brook, Smith & Reynolds (Lexington, Mass.) who meets with his student group biweekly for four hours at a time, maximizes the opportunity for the students to focus on patent law in the field of biotechnology. "I attempt to build on the fundamental skills that students have acquired in a technically specific way," he says. He also finds it important to give his students an early opportunity to see what life is like when they graduate. "I want to give them a peek at the world of patent practice," Brook says.

The Law Center has carefully woven the Advanced Patent and Prosecution class into the tapestry of its patent prosecution training program. Students enrolled in the course are required to have completed a basic Patent Practice and Procedure class which gives them an academic grounding for the work in Hauptman's course. In addition, many taking Advanced Patent Prosecution also enroll in Patent Practice II, taught by Chris Blank, a full-time intellectual property professor at Franklin Pierce Law

### Jefferson Medal Awarded to Karl Jorda

Karl Jorda, Professor of Intellectual Property Law and Industrial Innovation at FPLC was chosen to receive the 1996 Jefferson Medal of the New Jersey Intellectual Property Law Association (NJIPLA) at a ceremony which took place on May 10, 1996.

Professor Jorda, who also serves as Director of the Kenneth J. Germeshausen Center for the Law of

Innovation and Entrepreneurship at FPLC, received the NJIPLA honor in recognition of his extraordinary contributions to the U.S. intellectual property law system at a time when questions of U.S. law more than ever involve international issues. His career and life have reflected his global interests, beginning with his emigration from Germany to



Jefferson Medal

the United States on scholarship. After earning a M.A. in Chemistry and J.D. from the University of Notre Dame, he clerked for Judge Kiley of the Illinois Appellate Court.

He then began his career at CIBA-Geigy Corporation, where he directed the intellectual property department of one of the world's leading biological and chemical companies for twenty-six years. Karl Jorda is past President of both the New York Intellectual Property Law Association and the Pacific Intellectual Property Association (PIPA) and received the PIPA Medal for Outstanding Contributions to International Cooperation in the Intellectual Property Field in 1989. Professor Jorda has taught intellectual property at FPLC since 1989 and at the Fletcher School of Law and Diplomacy of Tufts University in Medford, Mass since 1995.

The NIJPLA's Jefferson Medal is awarded annually for exceptional contributions to the field of patents, trademarks, and copyrights. Previous medalists include a Supreme Court Justice, a Senator, a Congressman, CAFC Chief and Associate Judges, high American and foreign government officials, and several well-known inventors and industrialists. Karl Jorda is one of three people to receive both the PIPA and Jefferson Medals.

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Center. "The purpose of my class is to give a fairly thorough overview of patent prosecution," says Blank, noting that students learn to deal with a variety of different

procedural problems that can arise in patent practice. "My class covers the analytical process involved in patent prosecution," he says, "while [Hauptman's class] reaches the additional attitudinal and motivational aspects of practice that can only be taught in a mentoring relationship." Blank believes the marriage of the two classes is a great way to combine theory and application.



Chris Blank

Perhaps the greatest measure of the success of the program is the satisfaction of its former students. "It's great because it's so practical," says Greg Cohan, a third year law student who took the course when it was offered experimentally a year ago. Cohan, who will work for a Manchester, N.H. law firm as a patent lawyer, says that the program proved especially helpful when he interned over the summer. "The partners weren't just teaching me how to do it," he says contrasting his experience with that of other interns, "they were

teaching me how to do it better."

Adam Solomon, another third year student from the first class, agrees. "Once I began working in the summer, I experienced a very shallow learning curve." Solomon says the program allowed him to be more productive than other interns. He credits the class as one of the main reasons he was eventually hired as a patent attorney for United Technologies, the company where he was an intern. Solomon believes that the success of the program lies in its emphasis on the process of writing patents. "The only way to know how to do it, is to do it over and over again." he says. "With our experience," Solomon adds, "we can save a firm six months of training."

Dean Viles believes that this program is a significant step forward in legal education. "It's a new way of involving practicing lawyers in education in a way that works," he says. "There is an enormous reservoir of talent in the workplace," he adds, "and a well designed curriculum can utilize it." He looks forward to adapting the philosophy of Advanced Patent Prosecution to other areas of the curriculum.

Dan Cahoy is a first year student focusing his studies on intellectual property. He plans to pursue a career in the biotechnology field of patent law.

## The Intellectual Property Library

by Jon Cavicchi

In March 1995, the Law Center celebrated the official opening of its new Intellectual Property Library. Jon Cavicchi is the Intellectual Property Librarian charged with the planning and administration of the IP Library and is available to help researchers inside and outside the Law Center community.

The collection development objective is to acquire all major English language U.S. Intellectual Property titles, and is accomplished by the purchase of new titles and donations of unique titles of historical importance. The collection is in all major formats: paper, microfilm, microfiche, CD-ROM, online, Internet, audio and visual. The treatise collection contains approximately 3000 paper volumes covering all aspects of U.S. and international intellectual property law and practice. The Law Center is a Government Printing Office Depository, and as such, receives significant publications from the Patent, Trademark and Copyright Offices. The Library is also a depository for materials produced by the Licensing Executive Society of the U.S. and Canada.

Like the treatise collection, the Library contains periodical titles of interest to both practitioners and scholars. There are over fifty titles available including journals, law reviews and newsletters. The IP Library subscribes to numerous online and CD-ROM services such as BBS's, BRS, DATASTAR, DIALOG, INFORMART ONLINE, LEXIS/ NEXIS, ORBIT/QUESTEL, WESTLAW, CASSIS search disks from the Patent & Trademark Office,

Matthew Bender Search Master covering 17 major treatise titles, the United States Patents Quarterly and phone book disks for trademark searches.

The IP Library offers Internet public access terminals. The "Intellectual Property Mall," part of the FPLC homepage, is a unique collection of pointers to intellectual property resources served up both by the Franklin Pierce Law Center and other servers on the Internet. By constantly monitoring intellectual property resources on the Internet, the Mall is a comprehensive access point for intellectual property academics, business people, scientists, inventors and entrepreneurs. The Mall also contains papers produced by the Law Center community.

The IP Library services the needs of the students, faculty and members of the Law Center Library. Jon Cavicchi, IP Librarian and Assistant Clinical Professor of Law, provides research instruction to both J.D. and M.I.P. students through an introductory Legal Skills course and a nationally unique Intellectual Property Research Tools course which teaches the multiple access points for primary and secondary legal authority as well as non-legal data used by Intellectual Property researchers. Representatives from the major Intellectual Property database participate and provide the most up to date information and training available on these online and CD-ROM products.

Jon Cavicchi is 1984 FPLC J.D. graduate and M.I.P. candidate with considerable experience as an information professional.

## ALL WEBBED UP By William Shaw

It has been just over a year and a half since FPLC (http://www.fplc.edu) netted itself on the Web, and the response has been incredible. Since the addition of the World Wide Web to the Internet in the early 90's, law schools have been flocking to the Net to mark their territory on the global electronic information map, and FPLC sure hasn't been shy about claiming their chunk of cyberspace. The difference between what most other schools have done with this amazing opportunity and what FPLC has accomplished has left the critics raving. The FPLC community has been working full force since the site first went online to create more than a simple page, but a highly detailed information mall, and the fruits of labor are ripening.

Recently, Point Survey, a well known and regarded web site reviewing service which has been a feature on

CNN and in many publications, honored FPLC with their "Top 5% of the Web" award. An article in Interface Monthly, a computer magazine targeted at business professionals, states, "This is an excellent site, a model for appearance, workability and extraordinarily valuable content." The IP Mall (http://www.fplc.edu/IPMALL), an area within the FPLC site devoted to Intellectual Property Law news and research has also received acclaims from many in the IP community as a top site on the Web. This past November, LAWpages picked the Mall as the "Best IP Site," and several leading IP attorneys and information specialists have sent letters of praise and accolades for the site. A visit to the FPLC Web site is well worth it, and encouraged, for anybody remotely interested in law, law schools or intellectual property. It is guaranteed to be interesting, and may even prove profitable.

William Shaw is a first year law student interested in issues related to cyberspace.

## MIP Hi-Light

#### By Diane Hernandez

His wife refuses to come to visit him until he can prove the snow is gone. Not surprising, considering the recordsetting winter we have had in N.H., and since Andrias Mlungisi Mathabel is from the Kingdom of Swaziland, where the temperature never gets below 40°C.

Andrias is at FPLC this year for an MIP degree. He already has a BA in law from his university at home. He heard about FPLC some time ago, and has been trying to get here since 1990 but finding the time to leave his duties in Swaziland delayed his trip to America.

Making time in his professional life to come back to school has not been easy. Andrias is the Registrar General of his country, similar to a position of Commissioner in the U.S. He was appointed to this position in August, 1988, but he has held other positions in Parliament. When he took his position, he had not been doing much work with intellectual property. Investigating the

subject further, he realized the potential for his own country and began to work toward exposing Swaziland to IP. Through Andrias, the country joined WIPO, the World Intellectual Property Organization, a specialized part of the United Nations in Geneva. Swaziland also became a member of the Paris Convention, which is administered by WIPO. Andrias represents his country at the African Regional Industrial Property Organization (ARIPO) and was one of the signataries of the harmonization of the Patent Law Treaty in 1994.

It was not until the early 1990's that Swaziland set up its own system to handle intellectual property law. Using the UK as a model, Andrias has worked to get his own

country up to speed in intellectual property. Swaziland has its own trademark law and trademark registration, and the copyright law is pending. Currently, he is working on a patent bill with help from faculty at FPLC. Filing can be done in Zimbabwe, through



Swaziland

ARIPO, a division of WIPO. ARIPO does all of the substantive examination. Swaziland is also a member of PCT, with examination done by WIPO who receives the patent application and then forwards it to ARIPO.

At WIPO meetings in Geneva, Andrias went to the library, "thirsty to find a place to have some training on

the academic aspect of IP." He found a brochure on Franklin Pierce in 1992, just after attending his first diplomatic conference on the harmonization of patent law in the Netherlands. He would later discover that FPLC's own Professor Bill Hennessey was also attending this conference. He saw an opportunity in FPLC to learn

more about intellectual property. Although he applied and was admitted in 1993, his duties at home required that he postpone his trip twice, until finally this year he was released to come to school.

Andrias has experienced cold weather for the first time in his life during this past year in Concord, N.H. Even during his trips to Geneva, he says it was never this cold. His wife was

frightened to see so much snow when she visited over the Christmas break and she will not visit again until he offers her proof that the snow is gone. He spent his 50th birthday during a snowstorm! Andrias has spent his life in Swaziland, a small country in the middle of southern Africa. He says New Hampshire is like a small kind of heaven to him. When he came, he was surprised to see people leave their cars unlocked with the keys inside. This was not what he expected of America, and he had to ask Professor Hennesey to help him reconcile the differences between N.H. and the rest of the country.

He refers to his country as the "Switzerland of Africa" because of the size and topography. Businesses are relocating to Swaziland because the conditions are favorable. There is little upheaval, things are stable and the people have "warm hearts."

Swaziland has been hit by drought for the last five years, and people are concerned about basics in their lives, such as food and water. Southern Africa depends mostly on agriculture, growing items such as maize, cotton, bananas, pineapples and beans. However, Andrias feels that no country will succeed economically if IP is underdeveloped. He sees intellectual property as the vehicle to social economic development and training in that area is his priority.

Diane Hernandez, a first year student, is President of the Student Intellectual Property Law Association and a student editor of IDEA, the Journal of Law and Technology.

## **Patenting Human Genome Research**

By Scott Boone



Over the past decade, the Human Genome Project has blossomed from an idea into an international effort involving governments, academic communities, and commercial institutions. In October, 1995, Franklin Pierce Law Center hosted a conference entitled "Promoting & Managing Genome Innovation." This conference continued the discussion of the roles of intellectual property and federal technology transfer in furthering genome research that was begun at a conference hosted by FPLC in July, 1993.

The Human Genome Project was born in the late 1980's. New DNA sequencing techniques led researchers to believe that the sequencing of the three billion nucleotide base pairs that comprise the human genome was possible. In 1985 and 1986, three scientists, independent of each other, proposed that an effort be undertaken to sequence the human genome. Robert Sinsheimer, then the Chancellor of the University of California at Santa Cruz was the first to propose the basic idea. A month later, Renato Dulbeco of the Salk Institute proposed that the genome be sequenced as a means to understand cancer. The ideas he laid out in a series of public lectures were published in Science during the following year. The third originator was Charles DeLisi of the Department of Energy (DOE). DeLisi's efforts within the government combined with the widespread exposure of the public to the idea by Dulbecois Science articles led to the beginnings of the Human Genome Project.

From its beginnings as an idea born out of new technologies, the Human Genome Project has evolved into a scientific bureaucracy. Following recommendations in 1988 by both the National Research Council of the National Academy of Sciences and Congress' Office of Technology Assessment, Congress appropriated funds to both the DOE and the National Institutes of Health (NIH). The DOE program is managed by a Program Management Task Group and a Human Genome Coordinating Committee. The NIH portion of the project is directed by the National Center for Human Genome Research.

International bureaucracies have been born as well. In 1990, the European Community adopted a proposal entitled "Human Genome Analysis Programme." In addition, the Human Genome Organization was formed by a

group of scientists from seventeen different countries for the purposes of coordinating the research between the different countries, facilitating information exchange between scientists, and encouraging discussion of the implications of the Human Genome Project.

The shifting emphasis of Congress in the 1980's towards the transfer of technology from federal sources to industry and the increase in the recognition of the value of intellectual property has transformed the Human Genome Project within the U.S. into a hybrid enterprise between the federal government, academic institutions, and industry. Prior to the 1980's, Congressional policy stated that discoveries produced by public funds should be dedicated to the public; in other words, the results of federally funded research should be placed in the public domain. With the Stevenson-Wydler Technology Transfer Act of 1980, the Bayh-Dole Act of 1980, and the Federal Technology Transfer Act of 1986, Congress effectively reversed its position. Under these acts and their subsequent amendments, virtually any federally funded research results may be patented and licensed to U.S. industry.

Two rationales underlie this shift in policy. First, the public would benefit more from the discoveries if the discoveries were patented. If the results were placed in the public domain, then no one would have incentive to invest the money necessary to bring the discovery to the public in the form of a product. If however the discovery were patented, then the patentee or licensee of that patent would have incentive to invest money in developing a product from that discovery. With patent protection, the patentee/licensee would be reasonably assured of the chance to recoup his investment in development. Second, the public would benefit from a stronger, more technologically competitive U.S. industry. If the federally funded discoveries were placed in the public domain, then foreign companies as well as domestic companies could benefit from taxpayers' investment. By allowing for the patenting and licensing of federally funded discoveries, the government can insure that the benefits of research financed by taxpayers stay with U.S. companies.

The increasing emphasis on federal technology transfer and the growth of the Human Genome Project into an

enterprise wherein a large portion of the research and development of practical applications is expected to come from industry has raised many debates over the proper role of intellectual property. Several philosophical questions have been raised by the use of intellectual property in genome research. Members of the scientific community have debated the conflict between the idea of exclusive ownership of discoveries versus the tradition of sharing information found in the scientific community. Additionally, scientists and non-scientists alike have questioned whether it is proper for anyone to own the rights to a portion of the human genome.

Many of the most widely debated intellectual property issues arose from the controversial patent application of Dr. Craig Venter of the NIH, which involved a large number of expressed sequence tags (EST's). EST's are derived from cDNA libraries and therefore are believed to be sequence fragments of genes expressed in cells. The application claimed the sequences of the EST's, the genes that the EST's tagged, and the proteins that those genes encoded even though only the EST's had been sequenced and the genes (and proteins) tagged by the EST's were unidentified. Although the prosecution of the application by the NIH was dropped after the initial rejection by the examiner, it has remained as a case study for the interaction of intellectual property and genome research.

Dr. Venter's application raised two related questions. First, what degree of innovation should be rewarded? Second, how would the granting of this patent and others like it affect future genome research and commercial development? The NIH defended its decision to pursue patent protection for the EST's by saying it was necessary to preserve incentive for future commercial development. The NIH argued that because of the enormous expense of completing the additional research and development necessary to bring a finished product to market, companies would need sufficient guarantees of being able to recoup their investment. If the EST's were placed in the public domain, the published sequence fragments might make future developments of the tagged genes obvious and therefore unpatentable. Without guarantees of rights, companies would be unwilling to risk additional investment.

A large portion of the research community, several associations of pharmaceutical companies, and HUGO spoke against patenting of the EST's. They argue the innovative step to sequence the EST's was too small to be worthy of patent protection and the grant of patent rights to the EST's would stifle further research into the tagged genes. Additionally, they cited that since the tagged genes were unidentified no notice was provided to the

public as to what was claimed. Two patents could end up claiming the same gene with two different EST's and no one would know until the gene was later identified.

The debate over what results from genomic research should be patentable continues. For a more in-depth discussion of the interaction between intellectual property and the Human Genome Project, see "The Human Genome Projects: Patenting Human Genes and Biotechnology. Is the Human Genome Patentable?" by Dr. Benjamin Borson in 35 IDEA 461 (1995). Papers based on the discussions at the 1993 conference "Maximizing the Return from Genome Research" are available in 5(2) Risk: Health, Safety & Environment (Spring 1994). Papers from the 1995 conference will be available in a forthcoming issue of Risk.

Scott Boone is a first year student at Franklin Pierce Law Center. He received his B.S. in Neuroscience at Texas Christian University.

#### **INNOVATION CENTER**

The FPLC Innovation Clinic is a student run organization formed to provide a practical educational experience to the students of FPLC. The Clinic provides educational materials and generalized assistance to inventors, entrepreneurs, businesses and artists stressing self-help and educated decision making.

The Innovation Clinic administers the state funded New Hampshire Inventors Assistance Program (NHIAP) which provides information and guidance to NH inventors. The Clinic helped to form the NH Inventors Association and maintains a seat on the Association's board of directors. The NHIAP is developing a CD ROM product and a series of videos to educate inventors about the patent process.

The Innovation Clinic is also initiating a corporate intellectual property training program where students will develop videos, CD ROM products and published materials on corporate IP topics. The ultimate goal is to teach growing companies about the importance of intellectual property management and to give students who are interested in IP management experience in training engineers.

To serve the creative community, the Innovation Clinic has recently initiated the NH Artist Assistance Program (NHAAP). The NHAAP will provide information and guidance to fine artists, musicians, graphic artists, etc who are interested in protecting their creations.

Finally, to provide access to all of the Clinic's programs, the Innovation Clinic has developed a home page on FPLC's Internet connection. The site can be accessed through the FPLC home page at http://www@fplc.edu.

For more information, please call or write: FPLC Innovation Clinic, FPLC, 2 White Street Concord, NH 03301 phone: 603-228-1541

#### **Editor's Forum**

As in past issues, this column broaches fresh, debatable issues and provocative ideas for changes to our IP system. After all, "(y)ou don't improve things, unless you change things." (Bob McNamara) and we can't have a "frozen-intime, one-size-fits-all patent system" (Bruce Lehman).

#### 1. Why not cut the Gordian knot and legislate a 25year patent term across the board?

In the good old days a patent expired 17 years after its issuance — no ifs, ands or buts, except for a very rare extension via a private bill passed by Congress. Now, patent expiration dates are all over the calendar and it takes considerable sleuthing to determine when a patent has run its course. Under GATT/TRIPS-induced legislation the patent term is 20 years from the filing date for all applications filed on or after June 8, 1995, and the greater of 17 years from grant or 20 years from filing for all patents issued or to issue on an application filed before June 8, 1995. And it is 21 years when a provisional application was filed first. But if it's a pharmaceutical case and there was regulatory pre-market approval delay, or if there was delay in prosecution based on an appeal, an interference, or secrecy order, an extension up to 5 years may be obtained.

Controversial bills are now pending in Congress, which, if passed, would make matters worse, as they provide for 1) a patent term of 17 years from grant or 20 years from filing, whichever is longer (H.R. 359/S.284 — Rohrabacher/Dole) or 2) an extension of the 20-year term of up to ten years in cases of delay due to appeals, interferences, secrecy orders as well as unusual prosecution delays (H.R. 1733/S.1540 — Moorhead/Hatch).

Going to 25 years would simplify the system and make it cheaper. Doing this in all cases, whatever the technology, would be justified because lead times for commercializing inventions have become longer in all industries, not just in the pharmaceutical field (e.g. electronics and aerospace, 5-15 years; machine tools and automotive, 10-20 years: energy, 15-20). Interestingly, the copyright-based industries and the copyright bar in Europe and the U.S. have no problem establishing a copyright term measured by the author's life plus 70, lengthening it by 20 years.

## 2. How to keep our first-to-invent system cum interferences while embracing the first-to-file scheme.

Something needs to be done with our anachronistic interference system, especially now that it has been globalized by amending Section 104 of the Patent Code to admit evidence of inventive activity from NAFTA and

WTO countries. That is going to be disastrous. Yet, there is an ideal compromise or solution, one which former Commissioner of Patents and Trademarks Gerald J. Mossinghoff proposed at an ABA-IP Section Meeting in San Francisco on July 7, 1982. Unfortunately, it fell into oblivion. Under our proposal Mossinghoff said,

"We would retain the present first-to-invent system of priority. But we would change the procedure so that a patent will be issued to the first person to file an application, and it would be up to the second person filing an application on the same invention to trigger an interference with the patentee. If the 'junior party' is successful in the interference, his or her patent would run from the date of the original senior party's patent."

In fact, in 1980, when I was at CIBA-GEIGY Corporation and interferences were "coming out of our ears" (we had 45 at the time), I drew a similar conclusion in an Annual Interference Report to Management:

"There ought to be a better way to handle interferences and yet reconcile the conflicting policy considerations that have surfaced whenever elimination of interferences is suggested. Our first-to-invent system has degenerated into a monstrous atavistic interference practice. The resolution, the reconciliation: no interferences between pending applications; the PTO invariably issues the senior party's patent even if the filing date difference is but a day; the junior party then has to provoke the interference if it can."

Actually, such a modification would not be very radical because the Patent &Trademark Office already does not declare interferences between pending applications when the filing dates are more than three (or six) months apart in the case of simple (or complex) inventions but rather issues the earlier-filed application. However, such a change would have approximated a first-to-file system by eliminating interferences between pending applications and thus further reducing the incidence of interferences. This would have simplified and improved our patent system, while retaining the first-to-invent design with its fairness principle. We could have had the best of both worlds! What a missed opportunity! Hopefully, Senior Administrative Patent Judge Fred E. McKelvey, who is now trying to resuscitate the Mossinghoff proposal, will have better luck.

## 3. What should be done to provide protection for subpatentable inventions?

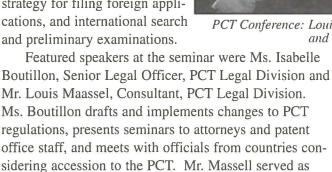
Should we not also have, as do most (industrialized) nations — in some for over 100 years — a petty patent or a utility model or a short-term patent, as it is called in

(continued next page...)

#### **FPLC HOSTS 1ST ANNUAL** BASIC PATENT TREATY SEMINAR

April 19-20, 1996 marked the first annual Patent

Cooperation Treaty (PCT) Seminar held at FPLC, administered by the International Bureau of the World Intellectual Property Organization (WIPO) which administers the PCT. The PCT is a patent filing system created to facilitate the application process for multiple international patent. Speakers addressed such topics as PCT timelines, applications, fees and benefits, correction of defects, strategy for filing foreign applications, and international search



Over 100 participants arrived from as far as California, Washington, Texas and Florida. Attendees received two days of informative lectures and a reference manual for PCT practice.

editor of the "Manual of Patent Examining Procedures"

## MAJOR PATENT PROBLEMS CONFERENCE

On November 11, 1995, Franklin Pierce Law Center (FPLC) in cooperation with the Kenneth J. Germeshausen

> Center for the Law of Innovation and Entrepreneurship and the PTC Research Foundation, both headquartered at FPLC, held its fifth conference of the major problems of the patent system. This biennial series of Patent System Major Problems Conference was started in 1987 by former FPLC professor Homer O. Blair.

focussed on three topics: 1) Patent Costs; 2) Future of the U.S. Patents and Trademark Office; and 3) Prior User Rights.

The 1995 conference

Towards the end of the conference, each attendee was given the opportunity to briefly identify additional major problems.

The purpose of the 1995 conference was to elicit opinions of people who are knowledgeable about the patent system about what could be done to solve or alleviate what some see as the patent system's major problems. The conference attendees included invited guests from the private and corporate patent bars, universities, the ranks of private inventors and entrepreneurs as well as faculty from FPLC. The format of the conference was in-depth discussion and exchanges among the attendees, without prepared speeches.



PCT Conference: Louis Maassel, Isabelle Boutillon and Karl Jorda

(...continued from previous page)

from 1968-1990.

Ireland, which established such a system recently? The European Union is now also seriously considering one based on a proposal by the Max-Planck Institute. The norm is becoming a ten-year term with a six-month pendency and a superficial examination. Unobviousness would not be a requirement; a lower level of invention ("not clearly obvious") would suffice. Such second-tier protection may indeed be needed, given the strict patentability requirements, the long pendency and the high cost of conventional patents. In other words, petty or short-term patent protection would provide coverage for a large area of innovations which fall between design and utility patents, cannot be maintained and protected by trade secrets and for which present utility patents are

out of reach because of high patentability standards and/or excessive costs. If sui generis protection was fashioned for microchips or mask works in a very short period of time (which some now believe was done improvidently), why not establish protection in the "twilight zone of subpatentable inventions" for the benefit of private inventors, entrepreneurs, small entities?

Karl F. Jorda, Editor

David Rines Professor of Intellectual Property Law and Industrial Innovation and Director, Kenneth J. Germeshausen Center for the Law of Innovation and Entrepreneurship

#### **Kudos!**

#### MERCK PATENT FELLOWSHIP AWARDED

J. Antonio Garcia-Rivas has been selected as the recipient of a Merck Patent Fellowship. Tony, a first year student at FPLC, has a PhD in organic chemistry from the University of Wisconsin-Madison, and a B.S from the University of Miami. He has worked as a research assistant at the University of Wisconsin-Madison, and has been an intern with Miller Brewing Company.

Merck & Co. is one of the world's leading pharmaceutical manufacturers. The Merck Patent Fellowship Program gives a student the opportunity to work closely with the patent counsel at Merck & Co. during the summer. In addition to a fellowship partially subsidizing law school tuition for the two students chosen every year, Merck & Co. gives the student's school an unrestricted grant of \$15,000. Since the attorneys at Merck are responsible for all aspects of intellectual property, the paid summer internship serves to expose the student to all aspects of intellectual property, including patents, trademarks and copyrights. The student helps to draft patent claims, participates in office actions and provides research support to patent attorneys.



MOOT COURT VICTORY

Congratulations to the team of **Jeff Greger**, '97, **Ainslee Schreibner**, '97, and **Kirk Gotlieb**, '97 for placing third in the Leftkowitz Regional Trademark Moot Court Competition held in New York, NY in February 1996. In the process, they defeated powerhouse teams from Yale, Boston University, Fordham, Syracuse and George Mason.

#### FRANKLIN PIERCE LAW CENTER

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