

Finding the Right Match

TURNING SCIENTIFIC PROGRESS INTO TANGIBLE PRODUCTS





The BP Corporation, commemorating a recent intellectual property contribution, as well as the company's long relationship with Stanford, presented OTL with a lithograph by Alice Luella Fidler from the BP Arts Collection entitled "Stanford Girl."

Inventions are like people: they thrive on close, nurturing relationships. At OTL our challenge is to find good matches for Stanford's early-stage inventions so that every invention can reach its full potential. We know we have made a good match when we have found a licensee committed to developing the technology for use in its products. As in any relationship, mutual respect is an essential ingredient, for respect leads to confidence that, together, we can create win-win solutions to unforeseen problems as the licensee overcomes the technical and market risks inevitable in bringing a new product to market. We are pleased to have served as matchmaker for so many productive relationships that have weathered the tests of time. We are always ready to pursue new and promising matches.

In spite of the economic downturn, gross royalties of \$52.7M marked this year as the second highest in revenue in OTL's 33-year history. More significantly, Stanford retained \$50.2M of gross royalties, the highest ever, because we distributed only \$2.5M to other organizations for their share of royalties. An unexpected \$5.8M in one-time royalties contributed to this banner year. Of the 385 technologies that generated income, 42 generated \$100,000 or more, and of those 42, seven produced over \$1M each.

ROYALTY DISTRIBUTION

Stanford's royalty-sharing policy provides for the distribution of cash net royalties (gross royalties less 15% for OTL's administrative expenses, minus direct expenses) to inventors, their departments, and their schools. In FY01-02, inventors received personal income of \$11.3M, departments received \$13.5M, and schools received \$13.1M*.

We contributed \$2M to the OTL Research Incentive Fund (details on page 4), which is administered by the Dean of Research for the support of early-stage, innovative research ideas. In addition, we contributed \$36,000 to the OTL Fellowship and Research Fund. Stanford also paid the University of California and other organizations \$2.5M for jointly-owned technologies for which Stanford has licensing responsibility.

EXPENSES

We spent \$4.9M on legal expenses, of which \$1.5M was reimbursed by licensees. We have an inventory of \$4.6M, which represents patent expenses for unlicensed inventions. Our operating budget for the year (excluding patent expenses) was \$2.6M.

NEW LICENSES

The economy clearly is affecting our ability to license technology. In FY01-02, we concluded 112 new license agreements (down from 137 new licenses last year), totaling \$1.4M in up-front license fees (down from \$3M last year). We did receive equity from 13 start-up companies, however, the same number as last year. The average upfront royalty was more than \$16,000.

Fifty-six percent of our 112 licenses were nonexclusive; four of these nonexclusive licenses were "ready-to-sign" agreements (i.e., downloadable from the OTL website, set price and no negotiation).

**While net royalties are divided evenly between the inventor, the inventor's department, and the inventor's school, some inventors designate a portion of their royalty income to their laboratories, hence the discrepancy in income.*

FY01-02 ROYALTY PAYMENTS TO STANFORD SCHOOLS

School of Medicine	\$8,234,915
School of Humanities and Sciences	\$3,307,942
School of Engineering	\$1,220,154
Vice Provost for Student Affairs	\$179,756
Dean of Research	\$122,139
DAPER (Athletics)	\$119,837
School of Earth Sciences	\$3,629
SLAC	\$2,906

EQUITY

As of August 31, 2002, Stanford held equity in 76 companies as a result of license agreements. The market for initial public offerings was dismal this year and share prices were down. For institutional conflict-of-interest reasons and insider trading concerns, the Stanford Management Company sells our public equities as soon as Stanford is allowed to liquidate rather than holding equity to maximize return.

This year, we received \$405,711 in liquidated equity from six companies: Curis, North American Scientific, Kosan, Staccato, @Road, and Natus. The bulk of the Staccato liquidation occurred last fiscal year when Analog Devices acquired Staccato, but certain payout provisions resulted in a \$300,000 payment to Stanford this year. The Staccato payment was used to reimburse OTL for our investment in the technology and the Sondius-XG trademark program.

START-UPS

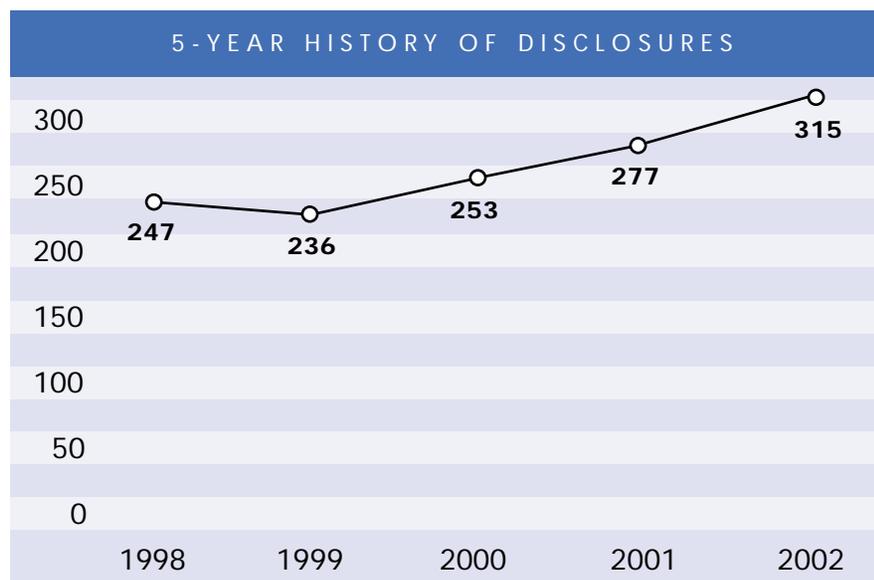
While Stanford entrepreneurs are still starting companies, the economy clearly has negatively affected the Silicon Valley entrepreneurial ecosystem. Venture capital investments dropped dramatically and investors are becoming more stringent. Yet we still licensed and received equity in 13 companies this year: Affinity Engines, Applied Immunogenetics, Bayhill, Biospect, Corcept, Deltronic, Integrinautics, Lexrite, ParAllele, T-RAM, Traxis, Trellis, and Xagros.

EMBLEMATICWARE LICENSING

FY01-02 was the third year that Collegiate Licensing Company (CLC) handled emblematicware licensing as Stanford's agent. Gross royalty revenue from emblematicware licensing has stayed relatively constant at about \$350,000 during the past several years. Stanford ranks in the top 50 (34th) of the 180 institutions that CLC represents.

NEW DISCLOSURES

In calendar year 2002, we received a record high of 315 new technology disclosures, up 9% from last year. Approximately 48% were in the life sciences and 52% were in the physical sciences, including computer science technologies. Our work with the Stanford Biodesign Network's Biomedical Technology Innovation Program class generated 14 disclosures from students as part of their coursework.



BIRDSEED FUND

The OTL Birdseed Fund, administered by the Dean of Research, has provided small amounts of money (typically up to \$25,000) to fund prototype development or modest reduction to practice experiments for unlicensed technologies. This year, the Birdseed Fund funded three new projects, for a total of 21 projects funded to date. The rate of licensing of Birdseed funded inventions is about the same as unfunded inventions (20-30%) but without this funding, many of these inventions would likely have remained wallflowers.

GAP FUND

In January 2000, we established an experimental Gap Fund to support development efforts up to \$250,000 for unlicensed technologies with commercial potential. The goal of the Gap Fund is to advance a funded technology to a point where it will be more attractive to potential licensees.

Over the years, we have developed relationships with many individuals with expertise in evaluating early-stage inventions. We were able to call on these experts to establish a non-Stanford external board for the Gap Fund comprised of friends of Stanford: Shinya Akamine, Nancy Kamei, Yoshio Nishi, Niels Reimers, Bertram Rowland, Bernard Shoor, Sandra Shotwell, Craig Taylor, Aldo Test, and Trevor Loy.

In 2002, the Board approved two projects for Gap Funding. Professor Friedrich Prinz's "3D Cells" project will develop proof-of-principle data for implantable cell devices (e.g., islet

cell bioreactor) and to prove the functionality of the bioreactor as an "ex-vivo" diagnostic tool. The research, an example of a Bio-X interaction, is underway in two academic units at Stanford: the Rapid Prototyping Laboratory of the Mechanical Engineering Department, and the Orthopaedic Research Laboratory of the Functional Restoration Division of the School of Medicine.

Professor Brian Kobilka and his laboratory are further validating "G Protein Coupled Receptor Arrays," which directly assess the affect of a potential drug on a receptor's function. Unlike conventional drug discovery approaches, this method yields rich information about the function and specificity of potential drug leads, resulting in a less costly, more efficient means of drug discovery.

RESEARCH INCENTIVE FUND

In the past five years, the Dean of Research has used OTL funds to fund over 120 seed research projects in all parts of the University. Primarily for assistant professors, research grants of approximately \$25,000 were used to fund projects such as Art and Art History Professor Paul DeMarinis's *Interactive Artwork "Any Way You Slice It,"* Hopkins Marine Station Professor Florenza Micheli's *Decline of Abalone Populations in Central California: Will Protection from Humans Allow Recovery?* and Geophysics Professor Kevin Arrigo's *Photoacclimation: Bridging the Gap Between Genes and Macro-scale Models.*

LONG-TERM RELATIONSHIPS ENJOYING A GOLDEN AGE

We feel fortunate to have a continuum of many excellent, long-standing relationships with licensees. A sampling includes:

YAMAHA

Our relationship with Yamaha has flourished since 1975 when we granted Yamaha an exclusive license to develop and manufacture a new music synthesizer using FM synthesis. Stanford's inventor, Professor John Chowning, spent seven years collaborating with Yamaha to develop his invention. The Yamaha FM chip became the de facto standard for audio. Five amendments to the license were made, and each time we were required to work through issues that were unanticipated at the original signing of the agreement. In 1989, Yamaha licensed the second generation music synthesis technology based on Physical Modeling. After eight years, Stanford and Yamaha agreed to pool their patents to form an alliance around the Sondius-XG program. Sondius represents Stanford's trademark, while XG represents Yamaha's trademark. The Sondius-XG trademark itself reflects our close relationship. We have visited Yamaha in Japan many times over the years, and Yamaha representatives have traveled to Stanford to maintain and expand our relationship. Recently, two OTL licensing associates went to Hamamatsu, Japan at the invitation of Kazukiyo Ishimura (former President of Yamaha) to discuss Stanford's technology licensing program as part of a program sponsored by Shizuoka University.

BECTON DICKINSON

The origins of Becton Dickinson's (BD) Immunocytometry Systems began in 1972 with one of OTL's first licenses to the Fluorescent Activated Cell Sorter (FACS), developed by Richard Sweet, William Bonner, and Henry Hulett in Professor Leonard Herzenberg's laboratory. Although we received a better financial offer for the technology from a competing company, BD presented the best case for being able to quickly develop and commercialize the FACS machine. The 1972 license, amended twice by the time it expired in 1991, began a long and fruitful relationship for us both. In 1982, Stanford granted an exclusive "flow cytometry" field of use license to BD for the phycobiliprotein technology. We hosted a special celebration in honor of BD to recognize the strength of our relationship. Through the years, BD has entered into over 20 licenses, many of them for biological research reagents, and has paid approximately \$30M in royalties to Stanford.

OLYMPUS

Our relationship with Olympus can be traced to the discovery and disclosure of the acoustic microscope invention by Professor Calvin Quate in 1973. The invention was licensed to American Optical in 1974, but the company was not able to create a licensed product, and the license was terminated. Leitz (now Leica) in Germany and Olympus in Japan subsequently became co-exclusive licensees in 1980 and both companies developed licensed products generating considerable royalty income for Stanford.

Since then, our relationship with Olympus has flourished. Olympus has taken 12 licenses in many different areas. In addition to the acoustic microscope, Olympus' licenses include atomic force microscopy cantilevers from Professor Calvin Quate's lab and the micromachined miniature confocal scanning optical microscope from Professor Gordon Kino's lab.

INCYTE

In 1994, Professor Pat Brown and graduate student Dari Shalon invented an arraying technique that became the basis of DNA microarray technology. Though we widely marketed the invention, no company expressed serious interest. In 1995, Dr. Shalon started a company, Synteni, to develop the technology. As Synteni's business model changed, the license terms were changed. Eventually, Synteni was sold to Incyte Pharmaceuticals and Incyte became our licensee. Again the license was renegotiated, this time between Stanford and Incyte, to accommodate the rapidly changing market. Stanford and Incyte are continuing to work together to make the array technology broadly available.

NEWLY-WED BLISS

BECKMAN COULTER, INC.

In 1997, Beckman Coulter, Inc. began a close relationship with Stanford by taking a field exclusive license to U.S. Patent 5,635,363, *Compositions and methods for the detection, quantitation and purification of antigen-specific T cells*. Beckman Coulter actively sublicenses this sought-after technology. Beckman Coulter is an enthusiastic partner and our relationship is based on frequent communication: company representatives keep us closely informed about how they are developing the technology and are sensitive to the special nuances of their field exclusive license.

PARALLELE

In 2000, separate teams of researchers at the Stanford Genome Technology Center developed two different inventions useful for multiplex genomic analysis. A group of these inventors believed that combining the two technologies along with an older Stanford patent and inventions from other universities could form the basis of a company, ParAllele BioScience. With this portfolio the company created a genomics platform to extract a suite of information from one streamlined and common infrastructure. The Stanford/ParAllele licenses took some time to negotiate because they involved several technologies and different provisions for each. Working through the complexities has helped us to build a strong foundation for what we hope will be a long and fruitful relationship with a golden age.

INTEL

Intel has been an enthusiastic supporter of Stanford's EPIC (Engineering Portfolio of Inventions for Commercialization) program. Offered broadly to electronic firms, Intel was the first to come calling. "The EPIC program represents an innovative way for a university to work with the electronics industry in a mutually beneficial way," says Ira Blumberg, Intel's Director of Licensing. From Stanford's perspective, it has made intellectual property issues in sponsored research contracts easier to negotiate because trust has been established.

PIXIM

From 1993 to 1997, Professor Abbas El Gamal and graduate students David Yang and Boyd Fowler developed four inventions related to image sensors. In 1998, Professor El Gamal started a multi-year, multi-company research project called the Programmable Digital Camera project. Then, in 1999, he and David Yang formed a start-up to commercialize the image sensor technology. Over the last three years we have watched Pixim grow and commercialize the Digital Pixel System technology started at Stanford, beginning with its initial funding of \$5.7M to its most recent Series C round of \$16.5M. Through visits and product demonstrations, we keep up-to-date with the progress of this exciting start-up and continue to build our relationship with the founders and management team.

ATTRACTIVE INVENTIONS SEEK LICENSEES FOR LONG-TERM COMMITMENTS

It may sound like a personal ad, but the truth is that while we have developed many excellent relationships, we often find ourselves seeking the right partner for most of our inventions. We feel we have many interesting and promising technologies, but establishing a long-term, committed relationship can be a challenge.

Who could not like Jelly Bellies? Joseph Weiss, a former Stanford developmental biology researcher, and Matthew Scott, an HHMI Investigator at Stanford, isolated a gene (called Jeb or Jelly Belly) required for development of tissue. This gene encodes a novel secreted protein that instructs cells in differentiation and possibly migration. When the protein is mutated, smooth muscle does not develop. The gene could be used for treatment of certain developmental, muscular, or neural diseases.

Can we really use technology to enhance the learning experience? We think so. Professor Roy Pea, Director of the Stanford Center for Instructional Teaching and Professor of Education, has developed several technologies that allow panoramic "Free-D Point of View" manipulation of video recordings with simultaneous audio and video viewings. The technology was one of the highlighted demonstrations at the dedication of the new Wallenberg Hall at Stanford, which houses the Wallenberg Global Learning Network, the Stanford Center for Innovations in Learning, Media-X, and the Stanford Humanities Lab.

For the right partner who can imagine the possibilities, this technology has enormous potential applications.

What's the next small thing? We expect that Bio-X-type inventions from Stanford will have a big impact if we can find the partners to commercialize them. One example of this is an integrated fluorescence sensor that would scale down biological analysis systems to create smaller and more portable biosensors for use in areas of bio-warfare, clinical medicine, and biological experimentation. The integration of lasers, emission filters, and photo-detectors onto a single chip results in a cheaper method of bio-detection while maintaining the system's parallelism and robustness. The highly portable nature of this tiny integrated sensor also results in a faster turnaround time by enabling point-of-service bio-analysis. There are multiple areas of use for this sensor but the largest market lies in biotechnology and other medical diagnostics as fluorescence is the most widely used bio-sensing method used in these fields.

ROCKY RELATIONSHIPS

Some relationships are not as harmonious as we would wish. Stanford filed its third infringement lawsuit in its 33-year licensing history against Visible Genetics, a Canadian company selling an FDA-approved HIV mutation diagnostic kit. With several licensees paying royalties under an issued patent, we have an obligation to enforce Stanford's patent against infringers. Although we hope the lawsuit is settled before going to trial, Stanford has an excellent case, and the judge has ruled in Stanford's favor in several motions.

FOR BETTER OR WORSE, FOR RICHER OR POORER

FUNCTIONAL ANTIGEN-BINDING PROTEINS

Functional Antigen-binding Protein technology (patent application filed in 1984) is licensed to Johnson & Johnson. Therapeutic antibodies, such as Remicade for the treatment of Crohn's Disease and rheumatoid arthritis, and Reopro, an anti-clotting agent, are covered by this patent. This case involves several complicated relationships. It is a joint invention with Columbia University with Columbia taking the lead in licensing. Johnson & Johnson is being sued by its sublicensee Medimmune on our patent. Thus, although the income is significant, there are risks involved and we cannot predict the future outcome of any litigation.

FIBER OPTIC AMPLIFIER

The telecommunications industry continues to be hit very hard by the downturn in the economy. Although royalties from the Litton license are robust this year, we cannot be certain that sales by licensees and subsequent royalties to Stanford will continue at the same high level of ~\$10M per year as it has been in the past. To date, the fiber optic amplifier invention has generated approximately \$23M in cumulative royalties.

PHYCOBILIPROTEIN CONJUGATES

Phycobiliproteins, proteins found in algae, have been extensively used in the biotechnology research community as fluorescent tags. Invented by Professor Lubert Stryer of Stanford,

Professor Alexander Glazer of the University of California, Berkeley, and Dr. Vernon Oi of Stanford, the technology was originally licensed exclusively to Applied Biosystems and Becton Dickinson for various fields of use. In 1986, Stanford filed its first patent infringement suit against Coulter Corporation but the lawsuit was subsequently settled and the company became a licensee. After their respective exclusive terms expired, we nonexclusively licensed it to 62 companies. In total, the technology has generated over \$32M to date, representing five U.S. patents filed between 1981 and 1991, with four issuing between 1985 and 1991. The last one will expire in 2003.

OTHER MEANINGFUL MATCHES

TAMPERE, FINLAND

Antti Juva (Hermia Business Development, Ltd.) and Reijo Itkonen (Finn-Medi) of Finland spent a total of six months as visiting licensing associates. Through their eyes, we were able to look at our own operations to discern what aspects of our process and business could be useful to other organizations as they establish their own technology transfer operations. We were able to give them hands-on and in-depth experience working in our office on a day-to-day basis, as well as a good network into Silicon Valley. Several members of the OTL staff visited Finland on several occasions, which helped us broaden our knowledge of European business customs. The European Union placed Hermia among the eight best innovation centers in Europe so we feel there is a good match between Stanford and Hermia.

UNIVERSITY OF EDINBURGH

The Human Communication Research Center of the University of Edinburgh and the Scottish Enterprise have a strong research relationship with Stanford's Center for the Study of Language and Information. We have agreed to work with the University of Edinburgh on the exploitation of interactive communication technology likely to come out of the research collaboration.

STANFORD GRADUATE FELLOWS

Using some of the revenue generated by OTL from liquidated equity, we have the pleasure to support nine Stanford Graduate Fellows: R. Dana Carpenter, Eun Hur, Ankur Jain, Su-In Lee, Mehdi Mohseni, Jonathan Patrick, Bjorgvin Sigurdsson, Kwee-Yan Teh, and Tamer Zaki. One of the highlights of the year was a luncheon at which each fellow described his or her research, giving OTL staff an opportunity to see the tangible impact of our work on teaching and research at Stanford.

STANFORD BIODESIGN NETWORK

OTL is continuing to work with the Stanford Biodesign Network (BDN) to provide the Stanford community of students, faculty and staff with education and mentoring in medical technology design and development. Through collaboration with BDN, OTL has received over 25 biomedical engineering disclosures resulting from core medical device courses, invention challenges, interdisciplinary mentoring, and community networking. The relationship is proving to be successful, as new start-up companies are granted licenses to commercialize a number of these emerging technologies.

CELEBRATING INVENTORS

OTL hosted a celebration of Stanford inventors, in particular recognizing the inventors who have made major contributions to Stanford and OTL through their inventions. Each of the following ten inventions have generated a cumulative royalty of \$5 million or more.

Stanley Cohen, Herbert Boyer – *DNA Cloning*

Lubert Stryer, Vernon Oi, Alexander Glazer
– *Phycobiliprotein Conjugates*

John Chowning – *FM Sounds*

Leonard Herzenberg, Vernon Oi, Sherie Morrison
– *Functional Antibodies*

John Cioffi, Jacky Chow, Peter S. Chow, Minnie Ho, Huijing Lou
– *Asymmetric Digital Subscriber Line*

Gordon Ringold – *Amplification of Eukaryotic Cells*

H. John Shaw and Michel Digonnet – *Optical Fiber Amplifier*

Nick McKeown, Rolf Mural, Ken Kun-Yung Chang,
Shang-tse Chuang, Pankaj Gupta – *Tiny Tera*

Doug Boyd – *Computer X-Ray Scanner*

James Plummer – *TRIMOS Device*

Twenty-one inventions to date have generated a cumulative royalty between one and five million dollars each. The inventors of these technologies are:

Richard Sweet, William Bonner, Henry Hulett
– *Fluorescent Activated Cell Sorter*

Mark Yelderman – *Cardiac Output Monitor*

Ron Levy, Lois Lampson – *Mouse Antibodies*

Michael Saunders, Bruce Murtagh, Walter Murray – *MINOS Software*

Steven Conolly – *Selective Excitation Pulses for Magnetic Resonance Imaging*

Haresh Shah – *IRAS Software*

Garry Nolan, Philip Achacoso – *Phi-NX Cell Lines*

Gilbert Chu, Ron Davis, Douglas Vollrath – *CHEF Electrophoresis*

Christopher Burge – *GENSCAN Software*

David Cheriton, Keith Lantz – *V System Software*

Julius Smith – *Digital Reverberation*

David Bloom, Olav Solgaard, Francisco Sandejas
– *Deformable Grating Modulator*

K. Barry Sharpless, Tsutomu Katsuki – *Asymmetric Epoxidation*

Robert Dutton – *SUPREM IV*

Gordon Kino, GuoQing Xiao – *Confocal Scanning Microscope*

Henry Kaplan, Nelson Teng – *Endotoxin Antibody*

Stanley Cohen – *MEDIPHOR/MINERVA/MUMPS Software*

Patrick Brown, Tidhar Dari Shalon – *Ordered Arrays*

Leonard Herzenberg – *Mouse Antibodies*

NEW INITIATIVES

FROM OPERATIONS...

In an on-going effort to streamline our operations, we have implemented e-invoices (emailed invoices with backup) to make the reimbursement of attorney expenses more efficient. In the past, we paid attorney bills, then re-billed by paper and physically mailed to the licensee. Because we can now receive attorney bills via email into our database, and then re-bill licensees electronically, we are able to process invoices more quickly.

We market Stanford inventions via email, letters, phone calls, and the Web. We find that more companies are reviewing our technologies via the Web, with a hit rate of over 4,200 per month. We have added a few video clips to describe certain inventions and we are always working to make our home page interesting and dynamic.

...TO INVENTORY

For the past 32 years, OTL has acquired and paid for patent expenses from “advance payments” made by Stanford’s General Fund. This year, we made the strategic decision to become completely self-supporting and independent of the General Fund for patent expenses. (We are already self-supporting and independent of the General Fund for our operating expenses.) With two payments totaling \$4.5M, we have now essentially erased our “debt” to the General Fund. From now on, we will begin to build up a reserve to pay for future ongoing patent expenses.

STANFORD TRADEMARK ENFORCEMENT FUND

The Chief Financial Officer and General Counsel of Stanford recommended that Stanford provide a permanent source of funding for extraordinary cases associated with the protection of the Stanford name and associated logos and trademarks. Based on their recommendation, the President and Provost approved the creation of a Stanford Trademark Enforcement Fund (STEF). Initial funding for the STEF comes from 1% of the department and school shares of net revenue OTL receives. For FY01-02, we transferred \$270,000 to STEF.

WE’VE MOVED!

After 10 years at our current Welch Road location, we moved in December 2002 to our new home on 1705 El Camino Real. One of our prime considerations in finding new space was to be close to our clientele – the researchers on campus. We are looking forward to more much-needed space.



INDUSTRIAL CONTRACTS OFFICE RESEARCH ENGAGEMENTS

In its fifth year of operation, OTL's Industrial Contracts Office (ICO) negotiated some 500 research, material transfer, and other related agreements covering University relationships with industry. We worked with more than 100 different companies worldwide, in industries ranging from chemistry to semiconductors to pharmaceuticals for studies involving the Schools of Medicine, Engineering, Humanities and Science, and the Graduate School of Business. The agreements set forth the terms for funding, publication, respective rights to developments and intellectual property that may arise out of the research and other issues.

These agreements included a three-year Clean Water Programme for Civil and Environmental Engineering with Nanyang University in Singapore. The contract covers research, teaching, and the exchange of researchers and students between the two universities, as Nanyang establishes an environmental instruction program. Another agreement covers a multi-year program in which DaimlerChrysler AG is sponsoring research in Mechanical Engineering. The current research program focuses on onboard vehicle diagnostic systems for enhanced automotive performance and repair. Yet another agreement covers a collaboration where researchers in Pediatrics receive embryonic stem cells, which are differentiated, and then transplanted into mice models to study infectious liver diseases such as Hepatitis B, C, and D.



During the past year, ICO redesigned its web pages, which provide information on Stanford's research policies and procedures. Visit our website at www.stanford.edu/group/ICO.

WHAT MAKES A MARRIAGE WORK?

If only we knew the answer to this question – and could patent the knowledge! In regard to licensing, one of our most important philosophies is that the licensing agreement marks just the beginning of a long-term relationship. A successful licensing relationship can endure for 20 years or more, but may need to weather many unforeseen events and circumstances. A relationship based on mutual trust and respect thus encourages continuing communication and permits changes to the agreement as necessary. Since an agreement itself cannot predict the future, it is vital for us all to have confidence that we will be able to work out differences when they occur. With a nod to *Casablanca*, a license agreement reflects not just a legal contract, but hopefully heralds the start of a “beautiful friendship.”

JUST SOME OF THE NEW INVENTIONS FOR 2002

- Programmable Underwater Connector with Knowledge (PUCK)
- Headpointer
- Babysitter
- Kidsitter
- Stowable Crutch
- Go-Bot
- AAC Checklist/Video
- Low Profile Neck Ring
- Landing Pit
- Rapid Diagnostic Test for Celiac Disease
- Microencapsulation method for bioactive components
- Increased production of proteins by recombinant yeast cells
- Increasing yield in microbial production systems by decreasing foam formation
- Identification of coactivator protein for STAT6
- Virus-resistant Transgenic Plants
- Agrobacterium-mediated Transformation of Turnip Rape
- A New Protein with Plant Protecting Properties
- Transgenic Plants Displaying Multiple Virus Resistance
- Use of Nucleotide Sequence for Enhancing Protein Synthesis and Expression of Proteins
- Identification of Genes Periodically Expressed in the Human Cell Cycle
- Clean Catalyst Delivery
- Use of Pfu polymerase for generating double stranded DNA products
- Multi-compartment Separation in MRI
- Use of a chimera for growth suppression and cancer therapy
- Retinal Prosthesis
- Cordless Stethoscope
- Soft Materials for Neurotransmitter-based Prosthetics
- New Mask Material
- Automatic Generation of Curved-planar Reformatting Images
- Insulin Recommending Glucometer
- Methods for Screening and Treatment of Female Stress Urinary Incontinence
- Isoapoptoliden
- The Palm Otopscope
- Gene controlling GRAIL function
- Measurement of Metallic Film Thickness
- Anchoring device for medical intervention
- Fat-Suppressed Steady-State Free Precession Magnetic Resonance Imaging
- Shipping Container Radiation Detector
- Protein Structure Comparison
- Polymeric Thin Films for Spatially-Controlled Microfluidic Delivery
- H.I.P.P.O.C.R.A.T.E.S. - History of Physicians and Patients Online - Creative Resources for Ancient Time Exploration at Stanford
- Screen for Transcription Modulation (STM)
- Generalized Diffusion Tensor Imaging
- Distributed Ultrasound System for Real-time, Remote Ultrasound Imaging Examinations
- Interactive Reporting of Postprocessed Radiological Images and Measurements
- Identification of Clinical Arteries
- Bone Removal in CT using Automated Targeted Morphological Separation
- Automated Measurement of Aortic and Aortiliac Angulation
- Automated Quantification of Arterial Calcification in CT Studies
- Curved Slab Maxium Intensity Projections (CS-MIP)
- Automated Measurement of Diameters and Volumes of Abdominal Aortic Aneurysms
- Quantifying the Infrarenal Aorta and Iliac Arteries
- Treatment of Perioperative Osteolysis
- Modulation of Neurotrophin Receptors
- Reflectionless multi-channel wavelength demultiplexer
- Inductive Substrate Bias Technique
- BrainImageJava
- An Improved Method for Visualization of Multidimensional Data
- Bottle-top Dispenser Stand
- 96-Netwell Plate
- Gene Silencing
- Kinase Inhibitors
- Cell Analysis in Valved Microfluidic Devices
- Microfluidic Flow Injection Analysis System
- iReport-Web-based Visual Messaging System
- Proteins with Survival Activity for Hippocampal Neurons
- 3D Bronchial Morphology Analysis Package
- Semi-Automatic Segmentation System for Radiotherapy Treatment Planning
- Optical wavelength filter
- Local Anesthetic
- Articulating Laparoscopic Surgical Tool
- 203 Gene Transcripts
- Improving Acoustic and Radio Links
- Endothelial Cell Specific Markers
- Preparation of a Photopolymerized Sol-Gel Packing Material with Controlled Porosity for Chromatographic Separations
- X-ray inducible promoters for activation of genes
- Quasi-Waveguide Electroabsorption Modulator
- Optical Detectors with Rapidly Electrically Tunable Spectral Response
- Spatially Encoded and Mobile Arrays of Tethered Lipid Vesicles
- Free-D Point of View Authoring of Virtual Tours of Panoramic Video Recordings
- Glimpsing Mechanism for Bookmarking Peripheral Events in Video Scenes
- Simul-View-Video
- Connecting Retinal and Other Neural Cells to Arrayed Electrodes
- Er-doped Superfluorescent Fiber Source
- Reward Box
- Fiber-Reinforced Adhesive Bonding of Polymer Electrolyte Fuel Cell Membranes
- Command-Shaping Filter Design with Input Constraints
- Methods for Diagnosis and Treatment of Human Autoimmune Diseases
- Method of Monitor Unit (MU) calculation for intensity modulated photon field
- Synthesis of Germanium Nanowires
- Low Power MOS Transistor
- Code Error Detection Software
- A Method and Device for Elbow Capsule Retraction
- Comprehensive Spacer Case
- Narrow Spacer Case
- Broadband Light Source for CRDs
- Real-Time Data Connectivity and Information Integration for the Transport of Critically Ill Infants and Children
- Collaborative online timeline application
- Therapies against a Regrowth Inhibitor in Autoimmune Demyelination.
- Massively Parallel Micro Channel Design for Fuel Cell Flow Distribution
- Population Clustering
- High-K Dielectrics for Carbon Nanotube Transistors
- Optical Cavity Device for Recording Ultrafast Phenomena
- 3D Flow Based Methods for Computer-Aided Detection
- Genomics and Proteomics for Identification of Blood and Urine Markers
- Club Nexus
- Manipulation of Lipid Bilayers
- Seizure Predictor
- Single-Molecule Optoelectronic Switch
- Simul-Hear-Audio: Multiple Simultaneous Microphones for Navigating Panoramic Audio-Video Documents
- Piecewise Linear Spatial Phase Modulator
- Transient Vessel Occluder
- Use of Transgenic Mice to Assess Drugs for Potential Hepatotoxicity
- Mutations as a Predisposition or Cause of Liver Disease
- Assays to Identify Compounds that Target Intermediate Filament Proteins
- Intelligent Total Access System (ITAS)
- Random Homozygous Gene Inactivation Using EST Libraries
- Immunoassay for ADMA
- Displacement-sensitive Photonic Crystal Structures
- Diseases of Related Genes
- Tunable Multi-Spectral Imaging
- Bi-directional Synthesis of Oligoguanidine Transport Agents
- Intermedin
- Transgenic Expression of Minicircle DNA
- Multiscale Materials Modeling Software Suite (3MS Suite)
- Detecting Sleepiness While Driving
- Use of Novel Inducible Autoantigens
- Automatic Generation of Radiological Teaching Files
- Method of Target Validation for Putative Analgesics
- A New Regime for Operating Capacitive Micromachined Ultrasonic Transducers
- Production of glycosylated macrolides in E. coli
- Mimicking the cellular environment with in vitro synthesis SNPSTR's
- Expression of Beta-Catenin Self-Renewing Hematopoietic Leukemias and Lymphomas
- CIFE interactive room technology
- Pen-Based Computer Input using Gross-Motor Movement
- Single Cell RF Microphone
- Virtual Labs (VIRLAB)
- Automatic Segmentation System for Radiotherapy Treatment Planning
- MegaCities Database
- Lateral Diffusion of Adsorbed Macromolecules Measured by Microfluidic Patterning of Substrate Surfaces
- Real-time Tele-Ultrasound
- IP Security using Identity-based Encryption
- Novel Microbial Therapies
- 3MATRIX for 3D Visualization of Drug Targets
- Characterization and Correction of Spatial Gradient Field Nonuniformities
- Day Active Mice
- Identity Based Encryption From the Weil Pairing
- Control of Electrolysis Gases in Electro-osmotic Pump Systems
- Photonic Waveguide with Large Bandwidth
- Interpolation Filter for Subarray Image Reconstruction
- Portable Light Therapy Device
- Optimal Shielded Pulsed Electromagnets for Prepolarized MRI
- Dispersing Light Using Multilayered Structures
- High-throughput, Non-invasive Monitoring of Sleep and Breathing in Mammals
- Online Conflict-of-Interest Disclosure Application
- Injection of Recombinant viral vectors into sensory ganglia for the treatment of pain
- D-Q Iteration for mu-synthesis of robust controllers
- Improved Double-Clad Fiber Lasers and Amplifiers
- Low Temperature Process for Fabrication of Silicon Nanocrystals
- eBlocks Protein Motif Database
- BioProspector



OFFICE OF TECHNOLOGY LICENSING
STANFORD UNIVERSITY
1705 EL CAMINO REAL
PALO ALTO, CA 94306-1106
650.723.0651
[HTTP://OTL.STANFORD.EDU](http://OTL.STANFORD.EDU)