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We at Erasmus University Medical Center Rotterdam believe that people can live healthier lives and that patients can suffer less. As a hospital and an academic organization we can contribute to make this happen. Erasmus MC is committed to patient care, education of future physicians and to research and development. In all our aspects we want to be connected to society and contribute to progress in curing diseases, prevention of illness and in human health in general. We do that in many ways. By educating talented people to become skillful physicians, by taking care of our patients in the best way possible, and by cutting-edge research.

We do even more than that: we also have an obligation to make sure that any discoveries that are made in the process of our academic research are used to develop useful products and services for society’s benefit in general and health care and patient benefit in particular. This process (known as “kennisvalorisatie” in Dutch, and “technology transfer” in the rest of the world) takes place at the intersection of science, business and finance. It is an essential part of our mission.

Since we cannot do product development ourselves, we have to seek out collaborations with industry to achieve our goals. Our Technology Transfer Office has been interacting successfully with industrial partners for quite some time now, and has achieved interesting results. We were fortunate with some rewarding successes in the preceding decade, such as the founding of companies like Viroclinics, Skyline Diagnostics and others. However, we are also looking at the future, and continue to proceed in the same vein.

Although the financial crisis of 2008 and recent research budget cuts imposed by the Dutch government have not made things easier, we have nevertheless managed to continue with our mission, and are happy with the results we have obtained so far. This annual report is a summary of our achievements of 2011 and the new directions we are taking in the field of “kennisvalorisatie”. I hope you enjoy reading it.

Sincerely,

Prof. dr. H.A.P. Pols
Dean and vice-chairman Executive Board Erasmus MC
MANAGEMENT LETTER

Dear reader,

As our Dean already remarked in his preface, the Technology Transfer Office (TTO) of Erasmus MC has a mission. To restate:

*It is our mission to create value by facilitating the transfer of our research results and technologies into useful products and services for society’s benefit in general and health care in particular, while generating unrestricted income to support research, education and patient care*

We take that mission seriously, and work hard every day to accomplish it. On paper it sounds simple, however, the day-to-day practice is a bit more resilient. Nevertheless, I am happy to report that this year we have accomplished quite a lot, in spite of the challenges. We will talk a bit more about these challenges later.

Some of this year’s highlights:
- We executed 14 new technology licenses.
- We supported a large number of consortium agreements, FP7 programs and other sponsored research agreements, ensuring that the intellectual property rights of Erasmus MC are guarded.
- We filed 15 new patent applications.
- We maintained a patent portfolio of 172 patents and applications.
- We are in the final stretches of realizing an additional Incubator facility that can house and support our start-up companies.
- We helped one more start-up company to initiate operations.
- We received, together with the Erasmus University, the Hogeschool Inholland, the Hogeschool Rotterdam, the Albeda College and Zadkine a very significant grant of the amount of € 5 M to stimulate entrepreneurship and explore new ways of creating innovation in patient care. The Valorisatie Programma Rotterdam support to Erasmus MC will be 800 k€ for a period of six years.

We will comment in greater detail about these accomplishments in a way that we hope will illustrate our philosophy on intellectual property, its importance, our way of protecting it and how it can be used to support innovation and create benefits for society and, in particular, patient care, disease management and prevention. After all, it is our core mission to ensure that academic knowledge is put to good use if and when that is possible: the taxpayers (our ultimate bosses) deserve and demand it.

It is, of course, not always possible to translate great science into a therapeutic or diagnostic product or improved protocols. On the other hand, seemingly minor observations made in clinical practice can lead to important discoveries, such as the insight that a drug originally developed for transplant rejection also has possibilities for the treatment of auto-immune diseases.
Identifying the right opportunity is not always as clear cut as described above. The ability to do so comes with experience, judgment, improvisation and a bit of luck here and there. But luck does not strike when you are standing still. That is why we try every day to sort through the great science that the Erasmus MC investigators produce. It is a privilege to do this in one of Netherlands’ most productive and academic medical settings, and to work for a crew that is as dedicated as any TTO I have ever encountered. Without the people of the Erasmus MC TTO none of what we report here would have been possible. All credit goes to them for achieving these results, and to the Erasmus MC investigators for their scientific achievements that make it all possible.

Happy reading,

Michel Bergh
Director, Technology Transfer Office
Director, Erasmus MC Holding BV
TECHNOLOGY TRANSFER: WHAT IS IT THAT WE DO, AND HOW?

At its core, technology transfer embodies two core activities:

- We identify and, if needed, protect all forms of intellectual property (IP) that results or is going to result from the scientific endeavors of our investigators.
- If there is a possibility that the IP can be used to be incorporated in innovative products and services that benefit society and patients, we seek partners (almost always industry) that can take on the development of our IP into such products.

The day to day practice, however, is a bit more complex. We get involved with technology scouting, licensing, start-up formation, supporting consortium agreements, sponsored research agreements and provide all forms of possible support when a scientist wants to start his / her own company.

Going through these steps one-by-one may be illustrative for what we are doing on a day to day basis. In the following sections, we will walk you through:

- Inventions, how we protect and commercialize
- Inventions that were successfully licensed in 2011
- Startup formation and assistance
- The Incubator and how it supports startups
- Some recent startup successes
**New test for Bladder Cancer** – The pathology department has established a world-class know how on diagnostic methods for bladder cancer. Some of these methods have such potential that we filed a patent application, covering the work of Dr. Ellen Zwarthoff and her group. A proof of concept subsidy was granted by the Cancer Genomics Centre and the method was successfully validated. We have been approached by several companies. In close collaboration with the pathology group, support of the Cancer Genomics Centre and with the aid of an external consultant we identified the company that most likely would be interested in a license and/or partnership, Predictive Biosciences. The company will now sponsor research for several years and an option to license the forthcoming results. In addition, the company has an option to license the patent application if the outcome of the research program is favourable.
When we consider inventions, we can distinguish between two categories:

- New Inventions, i.e. those that have recently been made
- Potential Inventions, i.e. those that do not yet exist, but may result from research that is still to be carried out (within consortia e.g.).

New Inventions

Identifying intellectual property – To a large extent, this is the easy part. Most scientists are more than eager to come and tell us about their discoveries and we are happy to listen and, together with our scientists, evaluate the possibilities. This often comes down to an assessment of patentability and market potential. Nevertheless, even if an idea or concept is not patentable (but still new and commercially interesting) we will look for ways to protect it. Examples are (biological) materials, specific expertise, copyright of protocols, etc. Even without patent applications it is sometimes possible to create commercially interesting opportunities.

Patentability and patent protection – Filing a patent application is one of the important tools which help us to attract commercial parties: companies will be interested in investing in new technology only if they can obtain a competitive advantage. Patents are one such tool to provide such an advantage by granting a period of exclusivity on the market. In order to be patentable, an invention must be novel and inventive, and can be applied. For example, a scientist reported an invention about a new procedure to detect and quantify certain cells in human blood, which are indicative of a particular pathology that otherwise was hard to diagnose. After further development the invention may lead to a new and better diagnostic method.

In that particular case the invention was novel (no one had reported this method earlier), the use of that particular cell type was inventive (everyone else always used different analytes) and it can be applied to a real disease state and its diagnosis.

Before filing a patent application we first perform a novelty search to ascertain that no one else has come up with the invention before. Sometimes our invention is made in collaboration with another university. We then arrange a deal with the other TTO about how we share expenses, who has the lead in negotiations with industry and how we distribute future revenues. This is not uncommon: we have negotiated successfully several such inter-institutional agreements.

The actual drafting of the text of the patent application is always done by specialists: the actual wording in patent applications is completely different from the way scientific publications are conceived, and can have a profound impact on the scope and breadth of the patent claims that are eventually allowed. Therefore we always outsource this to external patent attorneys at specialized IP firms.

There is a common misunderstanding that patenting an invention gets in the way of publishing scientific results. This is not true. The process of drafting and filing a patent application can be as short as a few weeks. We once had a case of joint ownership with another university and still managed, after negotiating with the co-owner, to get an application filed within 4 weeks. However, this is not meant as an encouragement to wait until the last minute: as with many things, there is an inverse correlation between time and quality.
“Slimmerzwanger” is a personal pregnancy programme comprising of a web-based screening and coaching via email and short message services on the mobile phone. It is the first E-health tool for couples planning pregnancy (preconceptional) and during pregnancy to change poor nutrition and lifestyles. The ultimate aim of www.slimmerzwanger.nl is to improve fertility and pregnancy course and outcome.

This innovative and interactive tool has been developed by dr. Regine Steegers at the Department of Obstetrics and Gynaecology / Division of Obstetrics and Prenatal Medicine of the Erasmus University Medical Center in Rotterdam, the Netherlands. The advantage of this programme designed for use on the mobile phone is that personal advice and interactions are given at any time, at any place and at very low costs.

It is well known that changing unhealthy and maintaining healthy behaviours is very difficult. However, couples having a child wish are the target group for changing nutrition and lifestyles, because of the short term beneficial effects of achieving pregnancy and having a healthy child. Therefore, the preconceptional and pregnancy period are a window of opportunity for lifestyle changes. Until the launch of Slimmerzwanger, no tools were available to support couples to follow the advices for healthy nutrition and lifestyle and to reduce the harmful habits. Because poor nutrition and lifestyle are global problems in both Western and developing countries, we are exploring opportunities for stakeholders to be involved in the Slimmerzwanger programme by offering rewards, such as free vouchers and healthy products.

Besides providing valuable advice to parents-to-be to improve health, nutrition and lifestyle, Slimmerzwanger is used to collect data for further scientific research on this subject.
In 2011, we filed a total of 15 patent applications, a slight increase over the previous years.

**Patent applications**

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Once the patent application is filed, publication or presentation of the details of the invention is possible and negotiations with possible commercial partners can be started. In our above mentioned example the invention was licensed to a foreign company that will be entrusted with the further development and the marketing of the new diagnostic tool. We expect to receive royalties from the licensee within the next year.

**Assessing market potential and marketing** – After the decision has been made that a patent can be filed or that the invention can be protected otherwise, we go out and look for companies that might have an interest in the new technology. Our team has a broad experience in business development and an extensive network. We explore the current market, its trends, market players, and their potential needs. We also make sure that there is “freedom to operate” (i.e. no blocking patents by others). Once we have established a firm positive belief in the market potential of the new technology, we go out and market the invention. We send out non-confidential disclosures and sometimes non-confidential presentations, we use on-line technology markets (such as Flintbox or Global Technology Portal) for rapid dissemination of the news and we reach out into our own network as well as the network of the inventor him / herself. The marketing process benefits from both the knowledge and network of the scientific group(s) and the network of the TTO. We reach out to those potential partners that are most likely to benefit from the technology, and have a fit with their own core business. These can be multinationals, but also start-ups or SMEs. Sometimes, if the inventor is absolutely determined to commercialize his / her invention him / herself, we consider starting up a new company. Only, however, if a number of conditions are fulfilled, such as financing, a decent business plan etc. (see page 25 for more on this topic). In addition to our own efforts, the strong reputation of Erasmus MC and its staff attracts companies that want to collaborate with Erasmus MC staff and / or benefit from Erasmus MC know-how and other IP.

An example of this entire process is the “Circulating Endothelial Cells” kit from the Department of Medical Oncology. The test can detect circulating endothelial cells (important in diagnosis and prognosis prediction of cancer and cardiovascular disease). There were similar products on the market, but these lack the sensitivity and efficiency of our new kit. A prospective industrial partner presented itself through the network of the inventors: it was interested in further development of this test kit. At this moment, an evaluation is being performed and the license agreement is under negotiation.

Licensing. Once we have established mutual interest, usually negotiations follow which may require flexibility and creativity by both parties in order to arrive at a mutually satisfactory agreement. Every license has circumstances that necessitate special considerations. For example, startup companies typically cannot afford large initial payments but are able to compensate with equity in the company and / or payments once products are on the market. Regardless of the nature of the party receiving a license (aka licensee), we always make sure that the licensee promises to diligently pursue development and commercialization of the technology, and reports on a regular basis on its progress.
Diabetes Station –

The outpatient clinic for diabetes patients at Erasmus MC is confronted with an ever increasing number of patients. Most of these (> 70%) come in for their bi-monthly or quarterly check up, a routine monitoring process involving a number of standard diagnostic tests. Nevertheless, these tests are time consuming and take up nurse-practitioner’s and physician’s time that could be spent on more complicated cases. Prof. Eric Sijbrands designed, together with engineers at IPT, a small e-health firm, a booth the size of a small cubicle where diabetes patients can perform most of these diagnostic routines by themselves. The booth is multi-lingual, and the software takes patient by the hand and walks him / her through all the steps. Diagnostic data are sent electronically to the treating physician who can then decide if he / she wants to see the patient in person for a more thorough check up, or not (as in most of the cases). It is envisioned that such stations are distributed throughout health care centers, pharmacies etc. and allow patients to carry out their own diagnosis in their own time, at their own pace and in their own native tongue (so far 10 languages have been implemented). Upon completion of the tests, the patient is offered custom-tailored treatment and lifestyle advice, empowering patients to exercise more control over their own disease. ■
For us, this is paramount, and follows directly from our mission to ensure that our research results and technologies are used for the benefit of society and, in our case, health care in particular. We do not grant licenses to patent aggregators, who only license technology for defensive purposes.

Post-licensing surveillance – Once a license has been granted, and the licensee is on its way to commercialize our technology, we continue to track progress. We recently implemented a web-base system that allows us to track and follow up of agreements, particularly license agreements, and receive alerts indicating when a royalty report, milestone or license fees becomes due. This helps in verifying licensees’ compliance and inquiring, if necessary, about overdue obligations. As a result, TTO has improved timely and accurate distribution of licensing revenue as determined in Erasmus MC’s policies.

Potential Inventions
Our legal team spends ever more time in protecting the rights of Erasmus MC with respect to IP that is expected to result from research activities under collaborations, consortia etc. Even if there are no new inventions yet, we can often anticipate the emergence of (patentable) inventions and other IP from research that is carried out solely by Erasmus MC or in collaboration with others (other academic institutions or industry), such as in the FP7 programs, or consortia such as TI Pharma, CTMM, BMM etc. It is important that any inventions made by our investigators are well-protected. If we do not pay careful attention to the property clauses in a research contract, material transfer agreement or terms for obtaining a public grant, Erasmus MC may end up not (fully) owning the rights to a blockbuster invention made by our scientists. The loss of licensing income would be the consequence.

The pressure and the competition for intellectual property under research contracts and collaboration agreements is mounting. There are several factors involved. First, the decrease in “eerste geldstroom” funding drives researchers more and more to seek funding from commercial contracts and consortium agreements (“derde en vierde geldstroom”). Second, within consortia such as TI Pharma, CTMM and the like, more and more industrial parties (mostly large internationals) are participating, putting increasing demands on IP generated by the academic partners. IP policies of government agencies that provide funding for such consortia are not always uniform or unambiguous, thus creating unnecessary complications for the IP lawyers involved in sorting out the respective rights of the consortium participants. We do not expect these trends to disappear, but rather the contrary.

The potential loss of opportunity is just one reason our legal team is paying close attention to research contracts and consortium agreements. Another, even more important reason is that there is a very real risk of major conflicts between agreements. This can result in severe damages and legal claims for damages for Erasmus MC, as well as its collaborative partners or even third parties. For example, if we do not pay attention, Erasmus MC may provide certain rights to inventions under one agreement, which were already exclusively promised to a third party, or can not or may not be provided by Erasmus MC since another agreement inhibits this.

We are now dealing with precisely such an issue: a cell line was developed under one consortium agreement, with rights to it given to all five consortium partners, including Erasmus MC. Unfortunately, that same cell line is now being used in another consortium that mandates
Cell Lines – Many departments have developed their own cell lines over the years. Some of these may hold other than mere scientific value, but have not been explored for that purpose. One of these is the PSA-ER8 cell line from the Department of Pathology, which was developed around 1989. We were contacted by an antibody company, asking if they could commercialize the antibody produced by this cell line. With consent of the scientist who developed the antibody, we negotiated a license agreement, resulting in a proper compensation for Erasmus MC. As many cell lines and antibodies developed at Erasmus MC may have (as of yet unexplored) commercial potential, we are now making an overview of these antibodies and cell lines, to see if we can build a portfolio of opportunities.
that the cell line must be given, free of charge, to all consortium partners, for an unlimited time. Legal issues such as these are, of course, intellectually challenging and stimulating (for lawyers, that is), but it also keeps our legal team quite busy.

Nevertheless, during 2011, we have successfully defended our IP rights in more than 300 research agreements (of which more than 30 were consortium agreements), more than 50 clinical trial agreements and more than 60 MTAs.

In 2011 we also executed 14 license and license option agreements (for examples see the side bars). This is a significant increase when compared to the previous years.

**License agreements**

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“**Laughing Gas / Nitrous Oxide**” – The Department of Obstetrics and Gynaecology (O&G) has developed know-how and a series of protocols that allow for administration of nitrous oxide for pain relief during childbirth, in a way that is not only safe for mother and child, but also eliminates occupational hazard for the professionals assisting in childbirth. This is accomplished by using a new gas scavenging system and constitutes a significant improvement over the current childbirth practices. The KNOV (Dutch Midwives Association) has stated that this method should be available in all birth clinics; if nitrous oxide can be administered locally in birth clinics, it is no longer necessary to transport women during childbirth to the hospital just for pain management.

To ensure a wide dissemination of this method for pain management in birth clinics, we teamed up with a not-for-profit organization (Careyn), granted them a license and formed a partnership. This arrangement is one of the models that we are currently using to explore possibilities for advancing innovation in patient care.
STARTUP FORMATION AND NURTURING

Technology Licenses – Most of the time we license Erasmus MC technology to companies that have established a track record in commercialization. Sometimes, however, inventors want to take on that task themselves and start their own company. We are open to do that, provided that certain conditions are met, such as the prospect of sufficient financing, a promising operational plan for the future, and the presence of competent management that can help the inventor in nurturing the startup on the road to success. Although the basic principles are the same, with start-ups we have to recognize the fact that they mostly do not have a lot of funding at the start. This means that we sometimes defer certain payments (e.g. reimbursement of patent expenses) until the company is on more solid financial ground.

Licensing to start-ups is always a tailor-made process of finding the right balance between the reimbursement a company can afford to offer to Erasmus MC and what is considered proper compensation for the technology. That process often takes time. Last year, we negotiated a license with a start-up that heavily depended on grants from the government. Additional venture capital was still needed, so we also engaged the financiers in a discussion on the rationale of our licensing terms. At this stage, we are confident that we can conclude the deal in the first half year of 2012.

Soft Loans and Entrepreneurial Support – Since startups are quite vulnerable at the early stages of their development, we are often called upon to assist. As an additional boost, we received an important grant from the Ministry of Economic Affairs in 2007, named “Rotterdam Werkt!” program sponsored by the Ministry of Economic Affairs in 2007. This grant enables us during the subsequent years, 2008-2011, to provide soft loans to entrepreneurial scientists who want to start a new company (aka “techno-starters”), assist in technology scouting and support other entrepreneurial activities.

In total, during the period 2008-2011 we assisted 20 starters.

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As can be seen from this table, the number of startups has been declining steadily during the last years. This is mostly due to the instability in the financial markets. As a result, financiers have become quite risk averse, and financing conditions have become difficult, and sometimes even impossible to accept. Nevertheless, we expect to see a reversal of this trend, and are now in the process of starting up at least two, if not more, new companies in 2012.

Incubator Support – Startups not only need support in the form of managerial backing, but are also in need of affordable laboratory and office space. Until recently, we provided such space on the 19th floor in the Faculty Tower on our campus. That space has become far too crowded. Therefore, our Executive Board decided in 2008 to start up a new incubator facility, “Incubator II”. This will be housed at the Marconiplein in a former office tower that now will be renamed “Rotterdam Science Tower”. This new space will offer our startups first class laboratory and office space in the close vicinity of other start-ups. Part of the service package offered by the new incubator is advice and training regarding business development, legal, marketing, IP management, a network
of coaches and the commercial and financial network of Erasmus MC, next to the option to share expensive research facilities of Erasmus MC. In 2011 we reached agreement with the landlord and concluded the interior remodelling plans for approx. 700 m². We expect that the Science Tower will be ready for our startups sometime in Q3 of 2012. Viroclinics Biosciences will also move to the Marconiplein, albeit it a bit earlier and will occupy an additional 2800 m².

**Tax Relief** – An additional service we provide to our startups is our assistance in tax matters. The government provides payroll tax refunds for SMEs (small and medium enterprises) that engage in research and development, the so-called WBSO ruling. We provide that service also to our own research departments that perform contract work on behalf of SMEs. Last year we received payroll tax refunds totalling, in aggregate, approximately € 976,000.

**Erasmus MC Holding BV** – In some, but not all of our startups, we hold equity. In several cases we own a majority stake, in others only a small minority interest. In all cases, however, we actively participate as an active shareholder, and strive to protect the interests of Erasmus MC and the inventors alike. We make sure that potential conflicts of interest for inventors are avoided as much as possible and assist in networking with potential alliance partners and / or investors.
2011 PROGRESS REPORT

Our aims for 2011 were ambitious but we managed to satisfy most of the demands that were placed on the TTO. At the beginning of the year, we planned to accomplish the following milestones:

- Two new initiatives in patient care innovation
- Seven new license agreements*
- Fourteen new patent applications*
- Realize the Incubator II in the Rotterdam Science Tower
- Update our licensing and intellectual property policies
- Implement an information management system

* These two objectives were part of the “Rotterdam Werkt!” goals that were agreed with the Ministry of Economic Affairs that provided the “Rotterdam Werkt!” subsidy.

This past year, we met most of our objectives, and realized a few other accomplishments as well.

Two new initiatives in patient care innovation
- The “Slimmer Zwanger” application has been adopted by one of the largest health care insurers of the Netherlands. Many studies have shown that poor life styles of couples that plan parenthood have a profound detrimental impact on perinatal complications and birth defects. We believe that “Slimmer Zwanger” is an important step forward in helping to reduce the number of these adverse outcomes.
- The license to Careyn for our nitrous oxide gas treatment protocol will also be an important step towards facilitating child birth pain management in the setting of birth clinics rather than the hospital environment. Finally, we made great progress in the commercialization pathway for the Diabetes Station by entering into a marketing agreement with KPN.

Seven new license agreements
In total, we executed fourteen new license agreements in 2011, exceeding our expectations. We are not sure if 2012 will be a repeat performance, since the number of licenses also depends on the number of inventions that are reported to the TTO.

Fifteen new patent applications
In total, we filed fifteen new patent applications, covering a broad spectrum of technologies, ranging from a method to improve the monitoring of metastases to a new application for a device that can determine tissue health using light measurements.

Realize the Incubator II in the Rotterdam Science Tower
We experienced some delays in negotiating the lease agreement with the property owner of the premises. All interior remodelling and construction plans were finalized in 2011, however, and we expect that the first companies can set up shop in Q3 2012.

Update our licensing and intellectual property policies
In 2011 we started with two significant adaptations to the Erasmus MC intellectual property policies.
- First, we extended the 40/40/20 ruling. This ruling applied to all revenues that emerge from licenses to patents and patent applications is divided 40/40/20 between the department, central budget and inventor(s). The policy was silent on revenues emerging from non-patentable inventions (such as software, cell lines, animal models etc.). The policy was adapted so that those revenues are distributed in the same way.

* These two objectives were part of the “Rotterdam Werkt!” goals that were agreed with the Ministry of Economic Affairs that provided the “Rotterdam Werkt!” subsidy.
The second adaptation involves patenting. Our patent policy stipulates that Erasmus MC Patent Fund will contribute 50% of patent filing expenses (during the first year, and with a cap), the balance to be borne by the department. This Patent Fund enables support of a considerable number of first filings each year. In 2011 the Executive Board agreed upon an update of the patent policy. This update states that all decisions regarding initial filings, prosecution and maintenance of patents, and all decisions on licensing of IP rights will be managed by the technology transfer office as of January 1, 2012. The concentration of information and decisions in the technology transfer offices enables a better commercialization of know how and a better management of related costs.

Implement a professional information management system
Recently, we purchased a web-based data management system to describe, track and follow up agreements, projects and / or invention disclosures that may or may not result in IP (patents and patent applications, copyrights etc.), also trackable. This system was developed by a US group (mainly former TTO officers) to address the special needs of TTOs, designed to our core business. It facilitates record keeping of agreements, projects and / or inventions, including IP thereof, and sends out alerts. It also serves as a digital archive and, being web-based, provides access “anytime-anywhere”. Its security features ensure complete confidentiality of all data. Complete implementation of this system is still ongoing; it is expected to be fully functional by end 2012.

Other Accomplishments
Final Report SKE Grant
An important milestone was the end of the “Rotterdam Werkt!” program sponsored by the Ministry of Economic Affairs in 2007. In that year we received a significant grant under the SKE program. (“Stimuleren Kennis Exploitatie”). This four-year program enabled us to give an important boost to technology scouting and support of new entrepreneurial activities. 2011 was the final year we could benefit from this state support. Overall, the program was quite successful. End 2011 we prepared our final report for the Ministry: we could report 332 leads, 49 patent applications, 20 technostarters, 16 pre-seed soft loans to starters, and a total of 31 license agreement during the grant period of 2008-2011. The total income from licenses in that period (new and previously executed) was approximately € 10 M.

Programma Valorisatie
The Ministry of Economic Affairs designed a follow-up subsidy program to the now expired SKE grants. This now called the Valorisatie-programma. Together with the Erasmus University, Hogeschool Rotterdam, Inholland and the Rotterdam “Ondernemers Academie” formed by Albeda College en ROC Zadkine and the city of Rotterdam we applied for a grant under this program. In 2011 a grant in the amount of € 5 M was awarded to this consortium. The program goals are to (i) enhance collaboration between industry, universities and colleges and government and (ii) to improve the knowledge transfer infrastructure and further professionalize the process of knowledge transfer at knowledge institutes. Specific focus for the Rotterdam Valorisatieprogramma are the knowledge and innovation “harbor and industry”, “medical and health care”, “creative industry” and “talent development”. The Erasmus MC component will be directed specifically towards medical applications, focusing on innovation in patient care.
Awareness Program
In 2011 we rebooted our awareness program. We organized presentation about the TTO and its services among faculty, postdocs and graduate students in several departments. We are beginning to see the results: after presentation of our vision on tech transfer and the possibilities for support, more scientists now approach us with their ideas and results. This program will continue in 2012, in higher gear.

AgenD BV
A new opportunity for unique animal models: In 2011 DNage B.V an earlier Erasmus MC spin-out company, acquired by Pharming in 2007, filed for bankruptcy after it failed to attract new investment capital. The Erasmus MC patent portfolio that was licensed to DNage returned to Erasmus MC. These patents cover DNA repair systems and specific anti-ageing compounds and still hold value. Thus, together with Prof. Hoeijmakers and the scientists of the Genetics department, we re-formulated a more focused strategy for a new company with a mission to develop and commercialize experimental animal models based on the patents and new technology by the department.

“Vrienden”
On behalf of the department of Child and Adolescent Psychiatry we have negotiated the rights to translate and publish a series of Australian work books and manuals for “Friends”, a clinically validated cognitive-behavioural program teaching children and adolescents to cope with anxiety, depression and other relational issues. By protecting the interests of Erasmus MC and the department, this has resulted in a revenue stream that, in aggregate, exceeds € 650,000.

Miscellaneous highlights from some of our spinout companies
- ViroClinics Biosciences grew significantly during 2011, and decided to relocate from the 19th floor in the Faculty Tower to larger premises. Assisted by the TTO it has decided to move to the Rotterdam Science Tower, occupying the two floors directly above the Incubator II. In its own facility it will realize a laboratory providing ML III-level facilities. ViroClinics will move the Rotterdam Science Tower in May 2012.
- Arcarios, a spinout company focusing on bone and joint diseases received the first tranche of a € 4.5 million Innovatiekrediet loan facility from Agentschap NL (Ministry of Economic Affairs, Agriculture and Innovation).
- Skyline Diagnostics received CE-certification and reports its first commercial launch on the European market of its AMLprofilerTM, a diagnostic chip that allows rapid classification of individual patients into risk categories.
- ArgenX, a company that develops a proprietary human monoclonal antibody platform, raised 27.5 M€ in a series B round.
NEXT YEAR: 2012

In this coming year 2012 we will continue on the path that we embarked upon in previous year.

Obviously, we will try to improve our performance, not only with respect to the number of licenses, patent applications, license revenue and other such directly measurable indicators, but also on other aspects such as turnaround time, response rate and intangibles such as customer satisfaction.

The world of innovation in health care is extending into new areas that before received less prominent attention, such as new, technical solutions for care problems. We foresee increasing interest and opportunities in this area. Aided by the Rotterdam Valorisatieprogramma grant, we can also bring more focus in our search for opportunities in patient care innovation.

As noted before, we will switch into higher gear with our Awareness Program, continuing and expanding our series of presentations and workshops for departments and special groups of (young) scientists. In addition, we are in the process of revamping our website.

With respect to startups, we are now exploring models that differ from the classic venture-backed startup. In the current financial markets, venture capital is difficult to attract, is highly dilutive and is often accompanied by unattractive conditions such as substantial liquidation preferences, dividend requirements etc. We have therefore looked in particular to those models that do not require venture capital but can be either self-funded, funded by partnerships with larger companies, or can start selling products right from the start. Although this is not the standard approach, we are hopeful that we will be able to create at least two such new startups and, by the time the Incubator II at the Marconiplein is ready to greet its first tenants, house them where they belong: together with other innovators.

Nevertheless, 2012 will not be an easy year. Budgetary constraints that touch all strata of Erasmus MC will also affect our office. In addition, new government policies with respect to IP distribution among consortium partners are being prepared in The Hague. Although we do not yet know the final details at the time of publication of this annual report, we feel that there could be substantial pressure on universities and academic medical centers to part with their IP at conditions at unfavourable conditions. This would set back the clock of technology transfer in the Netherlands for quite some time to come. We will therefore closely monitor the developments and, where possible, explain our viewpoints.

We realize that there is much work to do, but with enthusiasm and hard work, the technology transfer office aims at more and qualitatively more significant contributions to health care, industrial innovation and society in general.
COLOFON

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aan de slag met hart en vaten

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