



## Serono S.A ( NYSE ) Symbol SRA

Sector : Healthcare  
Industry : Biotechnology



### Business Summary

Serono S.A., a biotechnology company, focuses on the reproductive health, neurology, growth, and metabolism markets worldwide. The company offers Gonal-f for the treatment of patients suffering from ovulation disorders; Ovidrel/Ovitrelle to induce final maturation of ovarian follicles and to trigger ovulation; Luveris that provides a source of recombinant LH for patients that have a deficiency of both LH and FSH; and Rebig for the treatment of Multiple sclerosis, which is a progressive debilitating disease of the central nervous system that primarily affects young adults. It also provides Saizen, a recombinant growth hormone, for the treatment of growth hormone deficiency in children and adults; Serostim for the treatment of AIDS wasting; Zorbivite indicated for short bowel syndrome; and Raptiva, a humanized monoclonal antibody, to inhibit three key inflammatory processes in the series of events that are associated with psoriasis. Serono sells its products to wholesale distributors or directly to hospitals, medical centers, and pharmacies. In addition, it has approximately 30 ongoing development projects in new therapeutic areas, including oncology. The company has strategic alliance with BioMarin Pharmaceutical, Inc. and PRIORITY HEALTHCARE CORPORATION, as well as collaboration agreements with various other companies. Serono was formed in 1987 and is headquartered in Geneva, Switzerland.

### Headquarters

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Case postale 54  
Geneva 20,  
1211  
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[www.serono.com](http://www.serono.com)  
Fiscal Year Ends December

### Company Details

|           |       |
|-----------|-------|
| CUSIP     |       |
| SIC       |       |
| Employees | 4,902 |

### No. of Deals by Deal Category

Listed are specific company Technology, Product and Miscellaneous Deals and Alliances which we have analyzed and have extracted from nearly 15,000 citations incorporated into the Deals and Alliances Database associated with MedTRACK. Our database extends back nearly 20 years and currently consists of over 7,500+ deals, mergers, alliances and is constantly be added to and updated. We have attempted to include the salient details as an overview for the company of interest. Additional specific deal information is available on a subscription basis at [www.medtrack.com](http://www.medtrack.com). Specifics of a deal or deal search can be obtained by entering the MedTRACK Reference ID once logged onto MedTRACK.

- Technology Deals (7)
- Product Deals (30)
- Miscellaneous Deals (53)

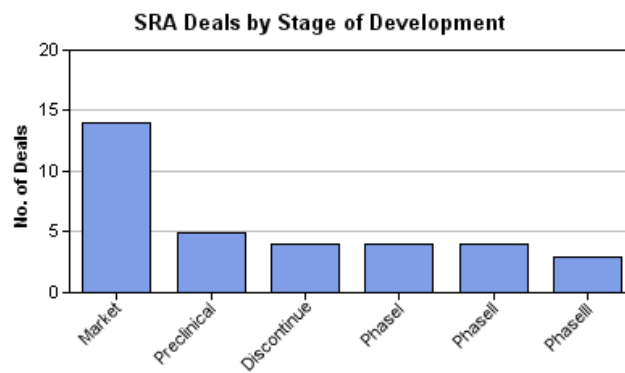
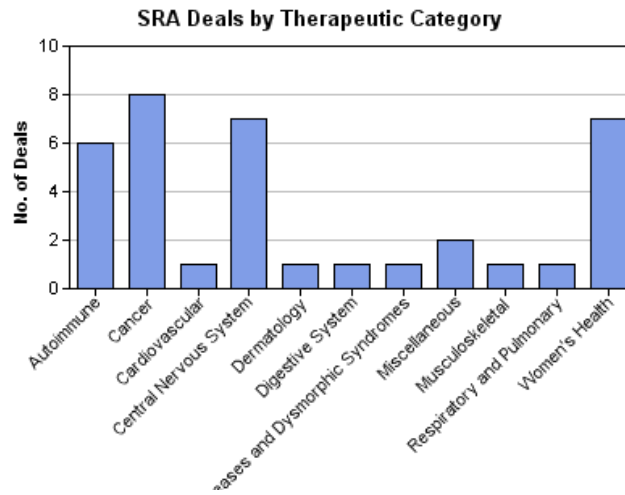
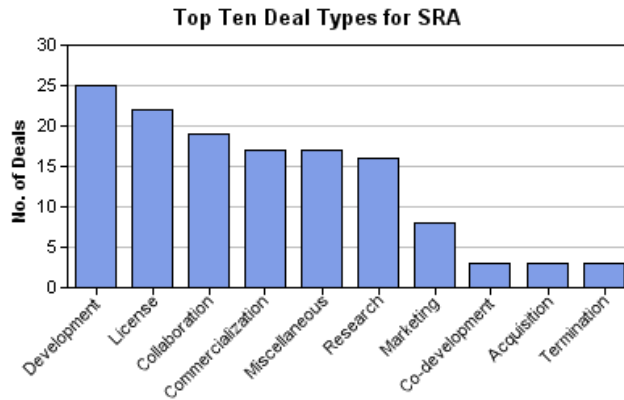
Total deals: 90

**List of Partners (93):**

|   |   |
|---|---|
| 4SC AG  | Palatin Technologies Inc                    |
| Abbott Laboratories                           | Paratek Pharmaceuticals, Inc                |
| AEterna Zentaris Inc                          | Pfizer Inc                                  |
| Affymetrix Inc                                | Pharmacia & Upjohn, Inc.                    |
| Akzo Nobel NV                                 | Pharmacia Corporation                       |
| Algene Biotechnologies Corporation            | PowderJect Pharmaceuticals PLC              |
| Alkermes Inc                                  | Priority Healthcare Corporation             |
| Amgen Inc                                     | ProMetic Life Sciences Inc.                 |
| Applera Corporation                           | Regeneron Pharmaceuticals Inc               |
| AstraZeneca Plc                               | Ricerca Biosciences                         |
| Atugen AG                                     | Rigel Pharmaceuticals Inc                   |
| Axonyx Inc                                    | Rosetta Biosoftware                         |
| BASF Aktiengesellschaft                       | Rosetta Inpharmatics, Inc                   |
| Biogen Idec Inc                               | Royal College of Surgeons in Ireland        |
| Bioject Medical Technologies Inc              | Sangamo BioSciences Inc                     |
| BioMarin Pharmaceutical Inc                   | Sanofi-Aventis                              |
| Cancervax Corp                                | Sanofi-Synthelabo                           |
| Cangene Corporation                           | Santhera Pharmaceuticals AG                 |
| Celera Genomics Group                         | SGX Pharmaceuticals, Inc                    |
| Celgene Corporation                           | Solvay S.A.                                 |
| Cellomics, Inc                                | Spherics, Inc                               |
| CeNeS Pharmaceuticals Plc                     | SR Pharma plc                               |
| Centocor, Inc.                                | Syntonix Pharmaceuticals, Inc.              |
| Centre Nationale de la Recherche Scientifique | Technion Israel Institute of Technology     |
| CGI Pharmaceuticals, Inc.                     | The Johns Hopkins University                |
| Chiesi Farmaceutici                           | The Medical House PLC                       |
| Chiron Corporation                            | Vernalis Plc ADR                            |
| Columbia Laboratories Inc                     | Vertex Pharmaceuticals Inc                  |
| Corixa Corporation                            | VIATRIS GmbH & Co. KG                       |
| Cyprotex                                      | Whitehead Institute for Biomedical Research |
| Evotec OAI                                    | Wyeth                                       |
| Fisher Scientific International Inc           | Wyeth-Lederle                               |
| Fournier Pharma                               | Xantos Biomedicine AG                       |
| French Atomic Energy Commission (CEA )        | XOMA Ltd                                    |
| French National Institute of Health (INSERM)  | Zenyth Therapeutics Limited                 |
| Genentech Inc                                 | ZymoGenetics Inc                            |
| GeneProt                                      |   |
| Genethon                                      |   |
| Genmab A                                      |   |
| Genset SA                                     |   |
| GlaxoSmithKline plc                           |   |
| InDex Pharmaceuticals AB                      |   |
| Ingenuity Systems                             |   |
| Inpharmatica Ltd                              |   |
| IntegraMed America Inc                        |   |
| IsoTis OrthoBiologics                         |   |
| IVAX Corporation                              |   |
| Johnson & Johnson                             |   |
| Karo Bio AB                                   |   |
| Meda AB                                       |   |
| Merck & Co Inc                                |   |
| Micromet AG                                   |   |
| Modex Therapeutics Ltd                        |   |
| Nautilus Biotech                              |   |
| NovImmune SA                                  |   |
| Organon                                       |   |
| OSI Pharmaceuticals Inc                       |   |

**Deal Types:**

- Development (25)
- License (22)
- Collaboration (19)
- Commercialization (17)
- Miscellaneous (17)
- Research (16)
- Marketing (8)
- Termination (3)
- Acquisition (3)
- Co-development (3)
- Settlement (2)
- Supply (2)
- Sales (1)
- Co-promotion (1)
- Manufacturing (1)
- Distribution (1)



**Top Deals by Deal Value**

| Date | Source/Partner | Deal Type(s) | Deal Value (in \$mm) | Reference ID |
|------|----------------|--------------|----------------------|--------------|
|      |                |              |                      |              |

|            |   |  |       |                    |
|------------|---|--|-------|--------------------|
| 12/16/2004 | Cancervax Corp                                    | Collaboration, Commercialization, Development          | 290.0 | prod_1129120041216 |
| 5/16/2005  | BioMarin Pharmaceutical Inc                       | Commercialization, Development                         | 257.0 | prod_144852005516  |
| 8/18/2005  | Genmab A/S  | Commercialization, Development                         | 215.0 | prod_164112005818  |
| 7/11/2002  | Pfizer Inc  | Co-promotion   | 200.0 | prod_8972002711    |
| 12/7/2004  | Micromet AG                                       | Collaboration, Commercialization, Development, License | 148.0 | prod_109382004127  |
| 5/17/2005  | NovImmune SA                                      | Commercialization, Development                         | 110.0 | prod_145262005517  |
| 2/1/1999   | Chiron Corporation PowderJect Pharmaceuticals PLC | Miscellaneous  | 101.1 | comp_17423199921   |
| 12/12/2000 | Vertex Pharmaceuticals Inc                        | Development, Marketing, Termination                    | 95.0  | comp_90420001212   |
| 9/8/2004   | ZymoGenetics Inc                                  | Commercialization, Development, Research               | 81.3  | prod_8333200498    |
| 3/23/2004  | SGX Pharmaceuticals, Inc                          | Collaboration, Development                             | 68.0  | tech_61242004323   |

### Partners based on Technology

| Date   | Technology            | Source/Partner  | Deal Type(s)               | Deal Value (in \$mm) |
|--|-----------------------|---|----------------------------|----------------------|
| 2/21/2005  | Admensa Interactive   | Inpharmatica Ltd                                      | Collaboration, License     | not disclosed        |
| <p>Inpharmatica Ltd, the selective drug discovery company, announced that Serono has licensed Admensa Interactive, a suite of predictive drug absorption, distribution, metabolism and excretion (ADME) models and compound prioritisation tools. Serono will receive a multi-site license to Admensa Interactive in addition to training and ADME consulting. (<i>MedTRACK Reference ID: tech_127932005221</i>)</p>   |                       |   |                            |                      |
| 3/23/2004  | FAST                  | SGX Pharmaceuticals, Inc                              | Collaboration, Development | 68.0                 |
| <p>SGX announced the formation of its first FAST drug discovery collaboration with Serono S.A. for the development of novel small molecule therapeutics. Under the terms of the agreement, SGX will apply its proprietary FAST (Fragments of Active STructures) technology to generate novel lead compounds for selected kinase and phosphatase targets provided by Serono. Serono will be responsible for development and commercialization of drug candidates produced from the collaboration.</p> <p>FAST is a proprietary lead generation technology developed by SGX for identification of novel, potent and selective small molecule inhibitors of drug targets within a rapid six-month timeframe. The FAST process involves crystallographic screening of lead-like drug fragments followed by structure-guided elaboration of the fragments by parallel chemical synthesis, guided by proprietary computational tools. Iterative determination of crystal structures for multiple target/compound complexes in parallel with assays, computational design and synthesis results in optimized leads with high binding affinities and low molecular weights. The combinatorial nature of FAST provides access to expansive chemical diversity in the order of 160 million compounds, while requiring only a small number of compounds to be synthesized and screened. Thus the FAST approach generates novel and potent lead compounds within months and with efficient deployment of chemistry resources. (<i>MedTRACK Reference ID: tech_61242004323</i>)</p> |                       |   |                            |                      |
| 12/23/2002   | Velocigene Technology | Regeneron Pharmaceuticals Inc                         | License                    | 15.0                 |
| <p>Regeneron Pharmaceuticals, Inc. entered into an agreement with Serono S.A. to use its proprietary Velocigene technology platform to provide Serono with knock-out and transgenic mammalian models of gene function. Under the terms of the agreement Serono will pay Regeneron up to \$3 million annually for up to five years. In return Regeneron will use Velocigene to provide knock-out and transgenic models for target genes to be specified by Serono. (<i>MedTRACK Reference ID: tech_390520021223</i>)</p>  |                       |   |                            |                      |
| 10/3/2001  | ArrayScan HCS System. | Cellomics, Inc<br>Fisher Scientific International Inc | Acquisition                | not disclosed        |
| <p>Cellomics, Inc. announced that Serono Pharmaceutical Research Institute, a subsidiary of Serono International S.A. has accessed Cellomics' High Content Screening (HCS) Technologies with the acquisition of a Cellomics ArrayScan HCS System.</p> <p>The ArrayScan HCS System, a proprietary system developed by Cellomics, performs automated acquisition, analysis, and presentation of information on multiple spatial and temporal events in individual cells. The ArrayScan HCS System was developed to provide reliable insight into the efficacy and toxicity of drug candidates. Measurement of these complex cellular responses provides researchers with additional knowledge that can be</p>  |                       |   |                            |                      |

critical to accurately determine which targets to investigate and which lead compounds to pursue. (*MedTRACK Reference ID: tech\_115342001103*)

|           |                                     |  |             |               |
|-----------|-------------------------------------|--|-------------|---------------|
| 10/3/2001 | High Content Screening Technologies | Cellomics, Inc<br>Fisher Scientific<br>International Inc | Acquisition | not disclosed |
|-----------|-------------------------------------|--|-------------|---------------|

Cellomics, Inc. announced that Serono Pharmaceutical Research Institute, a subsidiary of Serono International S.A. has accessed Cellomics' High Content Screening (HCS) Technologies with the acquisition of a Cellomics ArrayScan HCS System.

The ArrayScan HCS System, a proprietary system developed by Cellomics, performs automated acquisition, analysis, and presentation of information on multiple spatial and temporal events in individual cells. The ArrayScan HCS System was developed to provide reliable insight into the efficacy and toxicity of drug candidates. Measurement of these complex cellular responses provides researchers with additional knowledge that can be critical to accurately determine which targets to investigate and which lead compounds to pursue. (*MedTRACK Reference ID: tech\_115342001103*)

|           |                  |                          |               |               |
|-----------|------------------|--------------------------|---------------|---------------|
| 10/1/2001 | MIDAS Technology | Palatin Technologies Inc | Miscellaneous | not disclosed |
|-----------|------------------|--------------------------|---------------|---------------|

Palatin Technologies, Inc entered into an agreement with the Serono Pharmaceutical Research Institute, the research center of Serono S.A. of Geneva, Switzerland. Palatin will use MIDAS, its proprietary drug design technology platform to generate novel compounds in support of Serono's research programs. Financial details of the agreement were not disclosed (*MedTRACK Reference ID: tech\_14662001101*)

|           |          |              |             |               |
|-----------|----------|--------------|-------------|---------------|
| 1/11/2000 | ProLease | Alkermes Inc | Development | not disclosed |
|-----------|----------|--------------|-------------|---------------|

Ares-Serono and Alkermes announced that they have signed an agreement to develop a ProLease sustained release formulation of one of Ares-Serono's as yet undisclosed therapeutic proteins. The ProLease drug delivery system is especially attractive to patients and may improve treatment compliance since it allows multiple injections of a drug to be replaced with a single injection. This agreement marks a milestone for both companies who have been collaborating for two years on the feasibility of injectable sustained release formulations of a number of therapeutic proteins.

Alkermes is expected to manufacture the ProLease formulations of products commercialized under the agreement. Ares-Serono will be responsible for conducting clinical trials, securing regulatory approvals and marketing products on a worldwide basis. (*MedTRACK Reference ID: tech\_9022000111*)

|           |                                   |               |             |               |
|-----------|-----------------------------------|---------------|-------------|---------------|
| 12/1/1998 | Bioadhesive Drug Delivery Systems | Spherics, Inc | Development | not disclosed |
|-----------|-----------------------------------|---------------|-------------|---------------|

Spherics Inc. (drug delivery start-up) entered into an agreement with Ares-Serono to develop an oral formulation of an undisclosed Ares-Serono protein drug that is currently on the market in an injectable formulation.

Serono is providing research funding for preclinical development of the drug. Spherics may also receive milestones and royalties based on sales. The company has developed a bioadhesive technology that prolongs the residence time of drugs in the gastrointestinal tract, increasing absorption. (*MedTRACK Reference ID: tech\_147791998121*)

#### Partners based on Product

| Date   | Product Name                      | Source/Partner            | Deal Type(s)                            | Indication                | Deal Value (in \$mm) |
|--|-----------------------------------|---------------------------|---|---------------------------|----------------------|
| 10/25/2005   | R763                              | Rigel Pharmaceuticals Inc | Commercialization, Development, License | Cancer                    | not disclosed        |
| <p>Rigel Pharmaceuticals and Serono announced that they have signed an agreement under which Serono has been granted an exclusive license to develop and commercialize product candidates from Rigel's Aurora kinase inhibitor program. The license is worldwide, except for Japan, which Serono has an option to include at any time within the next two years.</p> <p>Rigel's Aurora kinase inhibitor program includes R763, for which Rigel expects to file an investigational new drug application in December 2005. R763 is a highly potent, orally-available multi-Aurora kinase inhibitor that has been shown in vitro and in vivo tumor xenograft models to inhibit proliferation and trigger apoptosis in several tumor cell lines including the cervix, colon, lung, pancreas and prostate. (<i>MedTRACK Reference ID: prod_1818120051025</i>)</p> |                                   |                           |   |                           |                      |
| 8/18/2005  | HuMax-CD4 (zanolimumab) / MDX-CD4 | Genmab A/S                | Commercialization, Development          | Cutaneous T-cell Lymphoma | 215.0                |
| <p>Serono and Genmab announced an agreement under which Genmab has granted Serono exclusive worldwide rights to develop and commercialize Genmab's HuMax-CD4. HuMax-CD4 is a fully human monoclonal antibody in development for the treatment of cutaneous and non-cutaneous T-cell lymphomas. It is currently being evaluated in a pivotal Phase III clinical trial for cutaneous T-cell lymphoma under the US Food and Drug Administration's Special Protocol Assessment process and has Fast Track designation from the FDA. HuMax-CD4 is also being</p>  |                                   |                           |   |                           |                      |

studied in a Phase II trial for non-cutaneous T-cell lymphoma. HuMax-CD4 is directed against the CD4 antigen and causes depletion of certain T-cells through antibody-dependent cellular cytotoxicity. (*MedTRACK Reference ID: prod\_164112005818*)

|           |                                   |            |                                |                               |       |
|-----------|-----------------------------------|------------|--------------------------------|-------------------------------|-------|
| 8/18/2005 | HuMax-CD4 (zanolimumab) / MDX-CD4 | Genmab A/S | Commercialization, Development | Non Cutaneous T-cell lymphoma | 215.0 |
|-----------|-----------------------------------|------------|--------------------------------|-------------------------------|-------|

Serono and Genmab announced an agreement under which Genmab has granted Serono exclusive worldwide rights to develop and commercialize Genmab's HuMax-CD4. HuMax-CD4 is a fully human monoclonal antibody in development for the treatment of cutaneous and non-cutaneous T-cell lymphomas. It is currently being evaluated in a pivotal Phase III clinical trial for cutaneous T-cell lymphoma under the US Food and Drug Administration's Special Protocol Assessment process and has Fast Track designation from the FDA. HuMax-CD4 is also being studied in a Phase II trial for non-cutaneous T-cell lymphoma. HuMax-CD4 is directed against the CD4 antigen and causes depletion of certain T-cells through antibody-dependent cellular cytotoxicity. (*MedTRACK Reference ID: prod\_164112005818*)

|           |         |              |                                |                     |       |
|-----------|---------|--------------|--------------------------------|---------------------|-------|
| 5/17/2005 | NI-0401 | NovImmune SA | Commercialization, Development | Autoimmune Diseases | 110.0 |
|-----------|---------|--------------|--------------------------------|---------------------|-------|

Serono SA said it has acquired exclusive worldwide rights to develop and commercialise two of NovImmune's fully human monoclonal antibodies, NI-0401 and NI-0501, both of which are currently in pre-clinical development.

NI-0401 targets the CD3 antigen, a key regulator in the activation of T-cells, the proliferation of which is a hallmark of many autoimmune diseases. It is expected to enter clinical trials this year. NI-0501 targets interferon-gamma, a key cytokine involved in the regulation of immune and inflammatory responses. (*MedTRACK Reference ID: prod\_145262005517*)

|           |         |              |                                |                     |       |
|-----------|---------|--------------|--------------------------------|---------------------|-------|
| 5/17/2005 | NI-0501 | NovImmune SA | Commercialization, Development | Autoimmune Diseases | 110.0 |
|-----------|---------|--------------|--------------------------------|---------------------|-------|

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|           |                                       |                             |                                |                 |       |
|-----------|---------------------------------------|-----------------------------|--------------------------------|-----------------|-------|
| 5/16/2005 | Phenoptin (sapropterin hydrochloride) | BioMarin Pharmaceutical Inc | Commercialization, Development | Phenylketonuria | 257.0 |
|-----------|---------------------------------------|-----------------------------|--------------------------------|-----------------|-------|

BioMarin Pharmaceutical and Serono announced that they have formed a strategic alliance for the further development and commercialization of two BioMarin product candidates, Phenoptin (sapropterin hydrochloride) and Phenylase (phenylalanine ammonia lyase). Both products have shown potential in the treatment of phenylketonuria (PKU), and there is preliminary clinical evidence that suggests that the active ingredient in Phenoptin, a synthetic form of the naturally occurring enzyme cofactor 6R-BH4, may also be useful in the treatment of other serious diseases, including diabetes and cardiovascular diseases.

BioMarin is currently investigating Phenoptin, an orally administered product, in a Phase 3 clinical trial for the treatment of PKU. PKU is an inherited metabolic disease caused by a deficiency of the enzyme phenylalanine hydroxylase, resulting in elevated levels of phenylalanine in the blood, which can result in serious neurological damage. There is currently no approved drug to treat PKU, which affects at least 50,000 diagnosed patients under the age of 40 worldwide. Phenylase, an enzyme substitution therapy for the treatment of severe forms of PKU, is currently in preclinical development. (*MedTRACK Reference ID: prod\_144852005516*)

|           |   |                             |                                |                 |       |
|-----------|---|-----------------------------|--------------------------------|-----------------|-------|
| 5/16/2005 | Phenylase (recombinant phenylalanine ammonia lyase) | BioMarin Pharmaceutical Inc | Commercialization, Development | Phenylketonuria | 257.0 |
|-----------|---|-----------------------------|--------------------------------|-----------------|-------|

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|          |           |            |                                |                            |      |
|----------|-----------|------------|--------------------------------|----------------------------|------|
| 5/2/2005 | HuMax-TAC | Genmab A/S | Commercialization, Development | Acute Transplant Rejection | 40.0 |
|----------|-----------|------------|--------------------------------|----------------------------|------|

Serono and Genmab A/S announced that they have signed an agreement under which Genmab grants Serono

exclusive worldwide rights to develop and commercialize Genmab's HuMax-TAC. The product is a fully human monoclonal antibody targeting the TAC antigen - also known as CD25, or the interleukin-2 receptor alpha subunit (IL-2Ra) - which is overexpressed by activated T-cells. By inhibiting the proliferation of T-cells, HuMax-TAC may have therapeutic potential in the treatment of T-cell mediated diseases, such as autoimmune disorders, inflammatory and hyperproliferative skin disorders, as well as acute transplant rejection. HuMax-TAC is currently in pre-clinical trials. (*MedTRACK Reference ID: prod\_14119200552*)

|           |                            |                                |                                |                    |               |
|-----------|----------------------------|--------------------------------|--------------------------------|--------------------|---------------|
| 3/31/2005 | Rebif (interferon beta-1a) | Syntonix Pharmaceuticals, Inc. | Commercialization, Development | Multiple Sclerosis | not disclosed |
|-----------|----------------------------|--------------------------------|--------------------------------|--------------------|---------------|

Serono and Syntonix Pharmaceuticals Inc. announced that they have entered into an agreement under which Serono has licensed worldwide exclusive rights to Syntonix' Transceptor(TM) and Synfusion(TM) technologies for the development and commercialization of interferon-beta:Fc products.

Syntonix' technologies may enable the development of an interferon-beta therapy for multiple sclerosis (MS) that can be administered by inhalation. It has been demonstrated that certain Fc constructs can facilitate transport of therapeutic proteins across the lung epithelium through neonatal Fc receptor-mediated uptake. In in vivo experiments conducted by Syntonix and Serono, a proprietary interferon-beta:Fc molecule produced by Syntonix exhibited pharmacokinetic and pharmacodynamic properties that justify further development. (*MedTRACK Reference ID: prod\_134352005331*)

|           |                         |  |         |                               |               |
|-----------|-------------------------|--|---------|-------------------------------|---------------|
| 2/28/2005 | Rosetta Resolver System | Merck & Co Inc Rosetta Inpharmatics, Inc Rosetta Biosoftware | License | Gene expression data analysis | not disclosed |
|-----------|-------------------------|--|---------|-------------------------------|---------------|

Rosetta Biosoftware announced that Serono licensed the Rosetta Resolver system. The Rosetta Resolver system is an enterprise-wide gene expression data analysis system designed to meet the scientific and business requirements of a global gene expression research effort. The Rosetta Resolver system is developed and supported by Rosetta Biosoftware, and is distributed exclusively by Agilent Technologies, Inc. (*MedTRACK Reference ID: prod\_128802005228*)

|            |          |                |   |          |       |
|------------|----------|----------------|---|----------|-------|
| 12/16/2004 | Canvaxin | Cancervax Corp | Collaboration, Commercialization, Development | Melanoma | 290.0 |
|------------|----------|----------------|---|----------|-------|

CancerVax Corporation and Serono and announced a worldwide collaboration for the development and commercialization of Canvaxin, an investigational specific active immunotherapy product being developed for the treatment of advanced-stage melanoma, a deadly form of skin cancer. Canvaxin is currently being evaluated in two international, multi-center Phase 3 clinical trials for the treatment of Stage III and Stage IV melanoma.

Under the Agreement, CancerVax and Serono will jointly develop Canvaxin for melanoma, as well as other indications. The companies will share equally the costs of developing Canvaxin and seeking regulatory approvals for Canvaxin.

Canvaxin, one of a new class of products being developed in the area of specific active immunotherapy (SAI) or therapeutic cancer vaccines, is based on a proprietary technology that may potentially be applied to treat a number of cancers. Canvaxin is currently being evaluated in two international, randomized, double-blind, placebo-controlled trials designed to evaluate the ability of Canvaxin to extend the survival of patients with Stage III and Stage IV melanoma following surgical resection of their tumors. (*MedTRACK Reference ID: prod\_1129120041216*)

|           |       |             |  |                 |       |
|-----------|-------|-------------|--|-----------------|-------|
| 12/7/2004 | MT201 | Micromet AG | Collaboration, Commercialization, Development, License | Prostate Cancer | 148.0 |
|-----------|-------|-------------|--|-----------------|-------|

Serono and Micromet have signed an exclusive collaboration and license agreement for the development and commercialization of Micromet's fully human monoclonal antibody MT201 (adecatumumab). MT201 is a pan-carcinoma monoclonal antibody directed against the epithelial cell adhesion molecule Ep-CAM. The product is currently being tested in two multicenter phase II clinical trials for the treatment of prostate and metastatic breast cancer. Ep-CAM, the target antigen for MT201, is over-expressed with high frequency on most human carcinomas, suggesting that it may have therapeutic potential in the treatment of a broad range of cancers, including prostate, breast, colon, lung, stomach, pancreatic, head & neck, and ovarian cancer.

Under the terms of the agreement, Micromet will be responsible for completing the ongoing phase II clinical trials, and Serono will take over further development and commercialization of the product. Effective immediately, Serono will be responsible for all development costs. (*MedTRACK Reference ID: prod\_109382004127*)

|           |                      |             |  |               |       |
|-----------|----------------------|-------------|--|---------------|-------|
| 12/7/2004 | MT201 (adecatumumab) | Micromet AG | Collaboration, Commercialization, Development, License | Breast Cancer | 148.0 |
|-----------|----------------------|-------------|--|---------------|-------|

Serono and Micromet have signed an exclusive collaboration and license agreement for the development and commercialization of Micromet's fully human monoclonal antibody MT201 (adecatumumab). MT201 is a pan-carcinoma monoclonal antibody directed against the epithelial cell adhesion molecule Ep-CAM. The product is currently being tested in two multicenter phase II clinical trials for the treatment of prostate and metastatic breast

cancer. Ep-CAM, the target antigen for MT201, is over-expressed with high frequency on most human carcinomas, suggesting that it may have therapeutic potential in the treatment of a broad range of cancers, including prostate, breast, colon, lung, stomach, pancreatic, head & neck, and ovarian cancer.

Under the terms of the agreement, Micromet will be responsible for completing the ongoing phase II clinical trials, and Serono will take over further development and commercialization of the product. Effective immediately, Serono will be responsible for all development costs. (MedTRACK Reference ID: prod\_109382004127)

|          |               |                  |  |                   |      |
|----------|---------------|------------------|--|-------------------|------|
| 9/8/2004 | FGF18 / Zfgf5 | ZymoGenetics Inc | Commercialization, Development, Research | Cartilage Defects | 81.3 |
|----------|---------------|------------------|--|-------------------|------|

ZymoGenetics and Serono announced their intent to enter into a broad partnership to research, develop and commercialize novel protein and antibody therapeutics based on discoveries made by ZymoGenetics.

Three license agreements for FGF-18, IL-22R and IL-31 will be entered into as part of this alliance. Serono will have worldwide exclusive rights for FGF-18 and IL-22R, which may be useful for repairing cartilage damaged by osteoarthritis or physical injury, and psoriasis, respectively. ZymoGenetics will retain co-development and co-commercialization rights in the U.S. for IL-31, which could be useful in treating inflammatory conditions such as asthma, psoriasis and inflammatory bowel disease. (MedTRACK Reference ID: prod\_8333200498)

|          |               |                  |  |        |      |
|----------|---------------|------------------|--|--------|------|
| 9/8/2004 | FGF18 / Zfgf5 | ZymoGenetics Inc | Commercialization, Development, Research | Stroke | 81.3 |
|----------|---------------|------------------|--|--------|------|

ZymoGenetics and Serono announced their intent to enter into a broad partnership to research, develop and commercialize novel protein and antibody therapeutics based on discoveries made by ZymoGenetics.

Three license agreements for FGF-18, IL-22R and IL-31 will be entered into as part of this alliance. Serono will have worldwide exclusive rights for FGF-18 and IL-22R, which may be useful for repairing cartilage damaged by osteoarthritis or physical injury, and psoriasis, respectively. ZymoGenetics will retain co-development and co-commercialization rights in the U.S. for IL-31, which could be useful in treating inflammatory conditions such as asthma, psoriasis and inflammatory bowel disease. (MedTRACK Reference ID: prod\_8333200498)

|          |       |                  |  |              |      |
|----------|-------|------------------|--|--------------|------|
| 9/8/2004 | IL-22 | ZymoGenetics Inc | Commercialization, Development, Research | Inflammation | 81.3 |
|----------|-------|------------------|--|--------------|------|

ZymoGenetics and Serono announced their intent to enter into a broad partnership to research, develop and commercialize novel protein and antibody therapeutics based on discoveries made by ZymoGenetics.

Three license agreements for FGF-18, IL-22R and IL-31 will be entered into as part of this alliance. Serono will have worldwide exclusive rights for FGF-18 and IL-22R, which may be useful for repairing cartilage damaged by osteoarthritis or physical injury, and psoriasis, respectively. ZymoGenetics will retain co-development and co-commercialization rights in the U.S. for IL-31, which could be useful in treating inflammatory conditions such as asthma, psoriasis and inflammatory bowel disease. (MedTRACK Reference ID: prod\_8333200498)

|          |       |                  |  |              |      |
|----------|-------|------------------|--|--------------|------|
| 9/8/2004 | IL-31 | ZymoGenetics Inc | Commercialization, Development, Research | Inflammation | 81.3 |
|----------|-------|------------------|--|--------------|------|

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|          |         |        |                                |                      |      |
|----------|---------|--------|--------------------------------|----------------------|------|
| 5/4/2004 | SC12267 | 4SC AG | Commercialization, Development | Rheumatoid Arthritis | 67.0 |
|----------|---------|--------|--------------------------------|----------------------|------|

4SC AG and Serono signed an agreement under which 4SC grants Serono exclusive worldwide rights to develop and commercialize 4SC's program of dihydroorotate dehydrogenase (DHODH) inhibitors. This program comprises a series of small molecules with potential as orally active treatments in autoimmune disorders, such as rheumatoid arthritis and multiple sclerosis. The agreement covers lead compound SC12267, which is currently completing Phase I clinical trials, as well as further back-up compounds and related intellectual property.

SC12267, a novel, selective and orally available, small molecule inhibitor of dihydroorotate dehydrogenase (DHODH), interferes with cell proliferation through blocking the synthesis pathway of pyrimidines. Its mode-of-action is of therapeutic relevance for the treatment of autoimmune disorders such as rheumatoid arthritis and multiple sclerosis. 4SC was able to reach clinical trials with SC12267 in less than 3 years through application of its proprietary virtual screening platform and state of the art discovery capabilities in medicinal chemistry and relevant disciplines. SC12267 has shown activity in in vitro and in vivo models. Ongoing Phase I studies indicate favorable pharmacokinetic properties, suggesting a likely once daily dosing regime of the well tolerated compound. (MedTRACK Reference ID: prod\_6644200454)

|           |            |       |                    |                    |      |
|-----------|------------|-------|--------------------|--------------------|------|
| 2/23/2004 | Kappaproct | InDex | Commercialization, | Ulcerative Colitis | 35.0 |
|-----------|------------|-------|--------------------|--------------------|------|

|            |   | Pharmaceuticals<br>AB   | Development                    |                                    |               |
|------------|---|-------------------------|--------------------------------|------------------------------------|---------------|
|            |   |                         |                                |                                    |               |
|            |   |                         |                                |                                    |               |
|            |   |                         |                                |                                    |               |
|            |   |                         |                                |                                    |               |
| 6/18/2003  | Cetrotide (cetorelix)                   | AEterna Zentaris Inc    | License                        | Infertility                        | not disclosed |
|            |   |                         |                                |                                    |               |
|            |   |                         |                                |                                    |               |
| 3/12/2003  | Novantrone (mitoxantrone)               | OSI Pharmaceuticals Inc | Marketing                      | Hormone-Refractory Prostate Cancer | not disclosed |
|            |   |                         |                                |                                    |               |
|            |   |                         |                                |                                    |               |
| 3/12/2003  | Novantrone (mitoxantrone)               | OSI Pharmaceuticals Inc | Marketing                      | Myelogenous Leukemia               | not disclosed |
|            |   |                         |                                |                                    |               |
|            |   |                         |                                |                                    |               |
| 11/13/2002 | Novantrone (mitoxantrone hydrochloride) | Amgen Inc               | Commercialization, License     | Acute Myelogenous Leukemia         | not disclosed |
|            |   |                         |                                |                                    |               |
|            |   |                         |                                |                                    |               |
| 11/13/2002 | Novantrone (mitoxantrone hydrochloride) | Amgen Inc               | Commercialization, License     | Multiple Sclerosis                 | not disclosed |
|            |   |                         |                                |                                    |               |
|            |   |                         |                                |                                    |               |
| 11/13/2002 | Novantrone (mitoxantrone)               | Amgen Inc               | Commercialization, License     | Prostate Cancer                    | not disclosed |
|            |   |                         |                                |                                    |               |
|            |   |                         |                                |                                    |               |
| 10/30/2002 | Mylinax (cladribine)                    | IVAX Corporation        | Commercialization, Development | Multiple Sclerosis                 | not disclosed |
|            |   |                         |                                |                                    |               |
|            |   |                         |                                |                                    |               |

Serono and Ivax Corporation announced a worldwide agreement to develop and commercialize Ivax' product,

cladribine, as potentially the first orally effective treatment of multiple sclerosis.

Based upon clinical and Magnetic Resonance Imaging (MRI) data from phase II trials suggesting that intravenous cladribine may be effective in certain MS patients, Serono and IVAX plan to establish the optimal oral formulation of cladribine and then initiate further clinical trials.

Under terms of the agreement, Ivax will receive a series of undisclosed milestone payments and will also receive royalties on sales of the product, once marketed. (*MedTRACK Reference ID: prod\_89220021030*)

|          |                                   |                           |                    |           |               |
|----------|-----------------------------------|---------------------------|--------------------|-----------|---------------|
| 8/7/2002 | Raptiva / Xanelim<br>(efalizumab) | Genentech Inc<br>XOMA Ltd | License, Marketing | Psoriasis | not disclosed |
|----------|-----------------------------------|---------------------------|--------------------|-----------|---------------|

Serono and Genentech announced that the two companies have entered into an agreement under which Serono will receive an exclusive license to market the psoriasis treatment Raptiva (efalizumab, formerly Xanelim) internationally outside of the United States, Japan, and certain other Asian countries.

Development and marketing rights in the United States remain with Genentech and its U.S. partner XOMA (US) LLC and Genentech retains exclusive marketing rights in Japan and certain other Asian countries.

Under the agreement, Genentech, Serono and XOMA may collaborate on co-developing additional indications for Raptiva and will share certain global development costs. (*MedTRACK Reference ID: prod\_6394200287*)

|           |             |                 |                           |             |               |
|-----------|-------------|-----------------|---------------------------|-------------|---------------|
| 7/23/2002 | Anastrozole | AstraZeneca Plc | Development,<br>Marketing | Infertility | not disclosed |
|-----------|-------------|-----------------|---------------------------|-------------|---------------|

Serono announced that it has signed an exclusive worldwide agreement with AstraZeneca by which Serono will have the rights to develop, register and market the aromatase inhibitor anastrozole in ovulation induction and improvement of follicular development.

Aromatase inhibitors have shown promise in early tests as potential new first-line agents for treating this condition. Serono, the global market leader in reproductive health, plans to conduct a comprehensive development program for anastrozole, with a Phase 2 clinical trial scheduled to start in the second half of this year. (*MedTRACK Reference ID: prod\_8902002723*)

|           |                   |            |              |                    |       |
|-----------|-------------------|------------|--------------|--------------------|-------|
| 7/11/2002 | Rebif (r-IFN-B1a) | Pfizer Inc | Co-promotion | Multiple Sclerosis | 200.0 |
|-----------|-------------------|------------|--------------|--------------------|-------|

Serono S.A. and Pfizer Inc. announced that an agreement to co-promote Serono's multiple sclerosis (MS) treatment Rebif (interferon beta 1-a) in the United States. Under the terms of the agreement, Pfizer will pay Serono an up-front fee of \$200 million, will share all commercialization and development costs in the U.S., and will receive a payment based on Rebif sales in the United States. Serono will record all sales and continue to distribute the product in the U.S. The dedicated sales forces of the two companies will provide Rebif with significantly greater reach than MS competitors in the U.S. The product will continue to be sold under the Rebif brand name. Serono will continue to be sole marketer for Rebif in the rest of the world.

(*MedTRACK Reference ID: prod\_8972002711*)

|          |         |                  |                                      |          |      |
|----------|---------|------------------|--------------------------------------|----------|------|
| 9/4/2001 | TACI-Ig | ZymoGenetics Inc | Co-development,<br>Commercialization | Leukemia | 52.5 |
|----------|---------|------------------|--------------------------------------|----------|------|

ZymoGenetics and Serono announced that they have entered into an exclusive co-development and commercialization agreement focused on two preclinical product candidates derived from ZymoGenetics' discovery research. Using a genomics-driven approach, ZymoGenetics' scientists identified the two molecules, termed TACI and BCMA, as key regulators of the human immune system. These two proteins are cell-surface receptors found on B-lymphocytes, cells involved in the production of antibodies.

The companies intend to focus their activities on the development of one or more products based on these receptors for the treatment of autoimmune diseases where there is an over production of autoantibodies (antibodies that attack one's own cells). Serono has extensive experience in the research and treatment of autoimmune diseases such as multiple sclerosis and rheumatoid arthritis, where there remain significant unmet medical needs. (*MedTRACK Reference ID: prod\_900200194*)

|          |         |                  |                                      |       |      |
|----------|---------|------------------|--------------------------------------|-------|------|
| 9/4/2001 | TACI-Ig | ZymoGenetics Inc | Co-development,<br>Commercialization | Lupus | 52.5 |
|----------|---------|------------------|--------------------------------------|-------|------|

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|          |         |                  |                                      |                  |      |
|----------|---------|------------------|--------------------------------------|------------------|------|
| 9/4/2001 | TACI-Ig | ZymoGenetics Inc | Co-development,<br>Commercialization | Multiple Myeloma | 52.5 |
|----------|---------|------------------|--------------------------------------|------------------|------|

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|          |         |                  |                                   |                        |      |
|----------|---------|------------------|-----------------------------------|------------------------|------|
| 9/4/2001 | TACI-Ig | ZymoGenetics Inc | Co-development, Commercialization | Non-Hodgkin's Lymphoma | 52.5 |
|----------|---------|------------------|-----------------------------------|------------------------|------|

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The companies intend to focus their activities on the development of one or more products based on these receptors for the treatment of autoimmune diseases where there is an over production of autoantibodies (antibodies that attack one's own cells). Serono has extensive experience in the research and treatment of autoimmune diseases such as multiple sclerosis and rheumatoid arthritis, where there remain significant unmet medical needs. (*MedTRACK Reference ID: prod\_900200194*)

|          |         |                  |                                   |                      |      |
|----------|---------|------------------|-----------------------------------|----------------------|------|
| 9/4/2001 | TACI-Ig | ZymoGenetics Inc | Co-development, Commercialization | Rheumatoid Arthritis | 52.5 |
|----------|---------|------------------|-----------------------------------|----------------------|------|

ZymoGenetics and Serono announced that they have entered into an exclusive co-development and commercialization agreement focused on two preclinical product candidates derived from ZymoGenetics' discovery research. Using a genomics-driven approach, ZymoGenetics' scientists identified the two molecules, termed TACI and BCMA, as key regulators of the human immune system. These two proteins are cell-surface receptors found on B-lymphocytes, cells involved in the production of antibodies.

The companies intend to focus their activities on the development of one or more products based on these receptors for the treatment of autoimmune diseases where there is an over production of autoantibodies (antibodies that attack one's own cells). Serono has extensive experience in the research and treatment of autoimmune diseases such as multiple sclerosis and rheumatoid arthritis, where there remain significant unmet medical needs. (*MedTRACK Reference ID: prod\_900200194*)

|            |         |                  |  |                      |     |
|------------|---------|------------------|--|----------------------|-----|
| 10/17/2000 | BB-2827 | Vernalis Plc ADR | Commercialization, Development, Research | Rheumatoid Arthritis | 5.0 |
|------------|---------|------------------|--|----------------------|-----|

Serono S.A. and British Biotech plc, have entered into an exclusive agreement to jointly research, develop and commercialize metalloenzyme inhibitors (MEIs) for the treatment of serious inflammatory diseases. Serono and British Biotech will work together under the agreement to identify new compounds for clinical development based on British Biotech's proprietary MEI platform technologies.

Any compounds selected for clinical development will then be progressed under the terms of an exclusive licence, development and commercialization agreement. Included within the scope of the agreement is an option for Serono to obtain exclusive rights to develop and commercialize BB-2827, a collagenase inhibitor that is a potential treatment for rheumatoid arthritis, following completion of certain clinical studies by British Biotech which began in October 2000. Serono also gains rights to BB-76163, an aminopeptidase inhibitor with potential application in multiple sclerosis, which is currently in pre-clinical testing.

NOTE:British Biotech plc renamed Vernalis Plc. (*MedTRACK Reference ID: prod\_472320001017*)

|            |          |                  |  |                    |     |
|------------|----------|------------------|--|--------------------|-----|
| 10/17/2000 | BB-76163 | Vernalis Plc ADR | Commercialization, Development, Research | Multiple Sclerosis | 5.0 |
|------------|----------|------------------|--|--------------------|-----|

Serono S.A. and British Biotech plc, have entered into an exclusive agreement to jointly research, develop and commercialize metalloenzyme inhibitors (MEIs) for the treatment of serious inflammatory diseases. Serono and British Biotech will work together under the agreement to identify new compounds for clinical development based on British Biotech's proprietary MEI platform technologies.

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NOTE:British Biotech plc renamed Vernalis Plc. (*MedTRACK Reference ID: prod\_472320001017*)

|            |                  |                  |                    |                    |     |
|------------|------------------|------------------|--------------------|--------------------|-----|
| 10/17/2000 | MMP-12 inhibitor | Vernalis Plc ADR | Commercialization, | Multiple Sclerosis | 5.0 |
|------------|------------------|------------------|--------------------|--------------------|-----|

|  |   |                                       | Development,<br>Research                          |   |               |
|--|---|---------------------------------------|---|---|---------------|
|  | <p>Serono S.A. and British Biotech plc , have entered into an exclusive agreement to jointly research, develop and commercialize metalloenzyme inhibitors (MEIs) for the treatment of serious inflammatory diseases. Serono and British Biotech will work together under the agreement to identify new compounds for clinical development based on British Biotech's proprietary MEI platform technologies.</p> <p>Any compounds selected for clinical development will then be progressed under the terms of an exclusive licence, development and commercialization agreement. Included within the scope of the agreement is an option for Serono to obtain exclusive rights to develop and commercialize BB-2827, a collagenase inhibitor that is a potential treatment for rheumatoid arthritis, following completion of certain clinical studies by British Biotech which began in October 2000. Serono also gains rights to BB-76163, an aminopeptidase inhibitor with potential application in multiple sclerosis, which is currently in pre-clinical testing.</p> <p>NOTE:British Biotech plc renamed Vernalis Plc. (<i>MedTRACK Reference ID: prod_472320001017</i>)</p> |                                       |   |   |               |
| 9/5/2000   | Cetrotide (cetorelix acetate)   | Meda AB<br>VIATRIS GmbH &<br>Co. KG   | Acquisition,<br>Distribution,<br>Marketing, Sales | Infertility                                     | not disclosed |
| <p>Serono S.A. announced that it has acquired exclusive rights from ASTA Medica to market, distribute and sell Cetrotide (cetorelix acetate for injection) in the US and worldwide, with the exception of Japan, for the indication of controlled ovarian stimulation prior to Assisted Reproductive Technologies (ART). In coming to this agreement, the companies amended their 1998 co-promotion arrangement for Cetrotide for use in infertility treatment. Last month, Cetrotide received marketing approval from the US Food and Drug Administration (FDA) under a new drug application (NDA) filed by ASTA Medica. As a consequence of the new agreement between Serono and ASTA Medica, the Cetrotide NDA will be transferred to Serono.</p> <p>Note : Viatris was formerly known as ASTA Medica. (<i>MedTRACK Reference ID: prod_17516200095</i>)</p> |   |                                       |   |   |               |
| 1/6/2000   | Cool.click  | Bioject Medical<br>Technologies Inc   | License   | Drug Delivery                                   | not disclosed |
| <p>Bioject Medical Technologies, Inc, a leading developer and manufacturer of jet injection systems for needle-free drug delivery, and Serono Laboratories, Inc., the U.S. affiliate of Ares-Serono, S.A, announced an exclusive license agreement in the U.S. and Canada to deliver Serono's Saizen recombinant human growth hormone with a customized version of Bioject's Vitajet 3 needle-free delivery system.</p> <p>Clinical studies evaluating the bioequivalence of Saizen when delivered with the Bioject needle-free delivery system have been completed. A 510(k) pre-market notification has been submitted to the U.S. Food and Drug Administration (FDA). (<i>MedTRACK Reference ID: prod_2629200016</i>)</p>   |   |                                       |   |   |               |
| 1/6/2000   | Vitajet 3 Needle-Free Injection System  | Bioject Medical<br>Technologies Inc   | License   | Clinical Systems                                | not disclosed |
| <p>Bioject Medical Technologies, Inc, a leading developer and manufacturer of jet injection systems for needle-free drug delivery, and Serono Laboratories, Inc., the U.S. affiliate of Ares-Serono, S.A, announced an exclusive license agreement in the U.S. and Canada to deliver Serono's Saizen recombinant human growth hormone with a customized version of Bioject's Vitajet 3 needle-free delivery system.</p> <p>Clinical studies evaluating the bioequivalence of Saizen when delivered with the Bioject needle-free delivery system have been completed. A 510(k) pre-market notification has been submitted to the U.S. Food and Drug Administration (FDA). (<i>MedTRACK Reference ID: prod_2629200016</i>)</p>   |   |                                       |   |   |               |
| 12/1/1999  | r-hFSH (recombinant human follicle stimulating hormone)   | Alkermes Inc                          | Development,<br>Termination                       | Infertility                                     | not disclosed |
| <p>Serono entered into an agreement with Alkermes for development of its ProLease drug delivery system for use with Gonal-F. ProLease encapsulates a compound in biodegradable microspheres, thereby creating an extended-release formulation of the compound.</p> <p>NOTE:In October 2004, Alkermes and Serono discontinued the development of a sustained-release version of recombinant human follicle stimulating hormone ("r-hFSH") for the treatment of infertility and terminated agreement. (<i>MedTRACK Reference ID: prod_175191999121</i>)</p>  |   |                                       |   |   |               |
| 7/2/1999   | Crinone/Prochieve ( 8% progesterone gel)  | Columbia<br>Laboratories Inc<br>Wyeth | License, Supply                                   | Secondary Amenorrhea (loss of menstrual period) | not disclosed |
| <p>On July 2, 1999 AHP assigned this license and supply agreement to Ares-Serono ("Serono"), a swiss pharmaceutical company. (<i>MedTRACK Reference ID: prod_8175199972</i>)</p>   |   |                                       |   |   |               |
| 5/20/1999  | Breaker Peptide   | Axonyx Inc                            | Development,<br>Research                          | Alzheimer's Disease                             | 22.5          |
| <p>Axonyx announced that it has entered into a research and development agreement with Ares-Serono. The agreement centers on platform peptide technology identified by Axonyx as showing potential to treat</p>  |   |                                       |   |   |               |

neurodegenerative diseases that are associated with accumulations of abnormal forms of proteins. Under the terms of the agreement, former New York University School of Medicine researcher, Dr. Claudio Soto has joined the Serono Pharmaceutical Research Institute (SPRI), Geneva, Switzerland, to conduct preclinical development and trials of Axonyx's patented peptides, which he originally identified. Ares-Serono will have the exclusive right to license from Axonyx any drug candidates that emerge from this program.

The research program will focus on proprietary peptide technology that has shown, in previous preclinical studies, the potential to inhibit the formation of toxic protein plaques, that typically form in the brains of people affected by this category of diseases. It will be conducted in Geneva, Switzerland by Dr. Soto working with SPRI's Neurobiology group. SPRI has existing projects in neurodegenerative diseases headed by Dr. Jean-Claude Martinou. Ares-Serono's contribution will include developing other drug candidates from Axonyx's original peptides and conducting preclinical trials of promising compounds. (*MedTRACK Reference ID: prod\_9061999520*)

|          |                         |                             |                           |                     |               |
|----------|-------------------------|-----------------------------|---------------------------|---------------------|---------------|
| 3/1/1997 | Esclim (estrogen patch) | Fournier Pharma Solvay S.A. | Co-development, Marketing | Menopausal Symptoms | not disclosed |
|----------|-------------------------|-----------------------------|---------------------------|---------------------|---------------|

The Swiss pharmaceutical company Ares-Serono has acquired exclusive US co-development and marketing rights to five transdermal hormone replacement products from the privately held French Groupe Fournier.

The series will be manufactured for Ares-Serono by Fournier's Tilderm Systems' drug delivery unit, while Ares-Serono's US division, Serono Laboratories Inc., will take charge of marketing the products. The hormone replacement therapy (HRT) lines include two estrogen therapies, two others combining estrogen and progestin, and one progestin product. Product launch is expected between 1998 and 2001 for the series; Esclim, one of the estrogens, is already marketed in France by Fournier and an NDA should be filed for US marketing in 2Q 1997. Total US HRT product sales for 1996 were \$1.5bn and are expected to grow at a rate of 10% annually. (*MedTRACK Reference ID: prod\_17393199731*)

|          |  |                       |         |             |               |
|----------|--|-----------------------|---------|-------------|---------------|
| 1/1/1995 | Follistim / Puregon (follitropin beta) | Akzo Nobel NV Organon | License | Infertility | not disclosed |
|----------|--|-----------------------|---------|-------------|---------------|

Serono granted to Organon a non-exclusive license under certain patents relating to recombinant gonadotropin technology. (*MedTRACK Reference ID: prod\_9494199511*)

|          |                             |                 |                    |                    |               |
|----------|-----------------------------|-----------------|--------------------|--------------------|---------------|
| 1/1/1994 | Avonex (interferon beta-1a) | Biogen Idec Inc | License, Marketing | Multiple Sclerosis | not disclosed |
|----------|-----------------------------|-----------------|--------------------|--------------------|---------------|

Biogen has licensed non-exclusive rights under patents on the DNA coding held by Ares-Serono's Ares Trading division.

The agreement also broadens Ares-Serono's participation in the beta interferon market. The company already markets a natural version of the product, and its recombinant version, already approved in Ares' principal market of Italy, is in Phase II/III clinical trials for cancer and immune disease indications in the US. Biogen consolidates its beta interferon patent position with the deal, strengthening its position as a competitor to Betaseron, which Schering AG subsidiary Berlex Labs has under license from Chiron and which has been well received in the US market as a treatment for relapsing-remitting multiple sclerosis. (*MedTRACK Reference ID: prod\_17368199411*)

|          |                              |                 |                    |        |               |
|----------|------------------------------|-----------------|--------------------|--------|---------------|
| 1/1/1994 | Interferon Beta Gene Therapy | Biogen Idec Inc | License, Marketing | Cancer | not disclosed |
|----------|------------------------------|-----------------|--------------------|--------|---------------|

Biogen has licensed non-exclusive rights under patents on the DNA coding held by Ares-Serono's Ares Trading division.

The agreement also broadens Ares-Serono's participation in the beta interferon market. The company already markets a natural version of the product, and its recombinant version, already approved in Ares' principal market of Italy, is in Phase II/III clinical trials for cancer and immune disease indications in the US. Biogen consolidates its beta interferon patent position with the deal, strengthening its position as a competitor to Betaseron, which Schering AG subsidiary Berlex Labs has under license from Chiron and which has been well received in the US market as a treatment for relapsing-remitting multiple sclerosis. (*MedTRACK Reference ID: prod\_17368199411*)

|          |                               |                     |  |                                     |               |
|----------|-------------------------------|---------------------|--|-------------------------------------|---------------|
| 3/1/1992 | Curosurf (porcine surfactant) | Chiesi Farmaceutici | Acquisition, License, Marketing, Termination | Respiratory Distress Syndrome (RDS) | not disclosed |
|----------|-------------------------------|---------------------|--|-------------------------------------|---------------|

Ares-Serono Group has acquired the rights to Curosurf (to treat respiratory distress syndrome) in 15 European countries, excluding Italy, from Chiesi Pharmaceutici.

The product is a natural pulmonary surfactant which keeps air sacs open. It is used to treat premature babies with respiratory distress syndrome. Infants receive a single dose of Curosurf just after birth. Chiesi will launch the product in Italy. Chiesi and Ares-Serono will also be investigating other uses of Curosurf.

On February 01, 2001 Chiesi buys back from Serono European rights to Curosurf, except in Portugal, where Serono will continue marketing the product throughout 2001. Chiesi will begin marketing the product itself in the UK, France, and Spain. Nycomed will be Chiesi's marketing partner for Curosurf in 11 European countries Chiesi doesn't already cover. (*MedTRACK Reference ID: prod\_9178199231*)

#### Miscellaneous Deals

| Date  | Source/Partner                  | Deal Type(s)                   | Area of Interest                     | Deal Value (in \$mm) |
|---|---------------------------------|--------------------------------|--------------------------------------|----------------------|
| 6/14/2005   | Ingenuity Systems               | License                        | Genomic and Proteomic datasets       | not disclosed        |
| <p>Ingenuity announced that Serono Genetics Institute has licensed its Pathways Knowledge Base for use in developing state-of-the-art internal drug discovery and development tools. The Ingenuity Pathways Knowledge Base is the world's largest manually curated biological database created from millions of individually modeled relationships between proteins, genes, complexes, cells, tissues, drugs, and diseases.</p> <p>Serono also licensed Ingenuity Pathways Analysis, an application that allows scientists to simultaneously analyze multiple genomic and proteomic datasets to rapidly gain biological insights. Ingenuity's newest release, announced March 15, 2005, now includes Sharing and Workgroups. The new functionality facilitates the communication of analysis results between colleagues in research organizations. (<i>MedTRACK Reference ID: comp_151072005614</i>)</p>  |                                 |                                |                                      |                      |
| 6/14/2005   | Priority Healthcare Corporation | Miscellaneous                  | Fertility                            | not disclosed        |
| <p>Serono and Priority Healthcare Corporation announced the formation of a strategic alliance, under which both companies will offer the fertility marketplace expanded and unprecedented support to consumers, patients, healthcare providers and managed care organizations.</p> <p>The announcement marks a first-of-its-kind alliance between the market leaders in reproductive health: Serono is the worldwide leader in reproductive health and Priority Healthcare's Freedom Drug is the nation's largest fertility specialty pharmacy. Together, both companies will offer unique, comprehensive services that will increase efficiencies and conveniences for infertility patients, encourage consumers with fertility concerns to seek early diagnosis, make available valuable savings for patients without fertility drug coverage, and increase the potential for patients to continue fertility treatment. (<i>MedTRACK Reference ID: comp_151192005614</i>)</p> |                                 |                                |                                      |                      |
| 3/17/2005   | Affymetrix Inc                  | Miscellaneous                  | GeneChip Mapping, Multiple Sclerosis | not disclosed        |
| <p>Researchers at the Serono Genetics Institute have announced the identification of 80 genes involved in the inflammatory and neuro-degenerative pathways of multiple sclerosis (MS). The Serono research team, led by Professor Daniel Cohen, Vice-President and Worldwide Head of Genetics, used the Affymetrix GeneChip(R) Mapping 100K Set in an initial scan to compare the genetic profiles of people with MS to people without MS using over 100,000 SNPs (single nucleotide polymorphisms).</p> <p>This large-scale association study was performed in French, Swedish and American populations, comprising a total of 900 people with MS and 900 healthy individuals. This represents only the first phase of Serono's MS Whole Genome Scan project, and the next step is to apply the upcoming Affymetrix GeneChip Mapping 500K Set to scan over 500,000 SNPs in these populations. (<i>MedTRACK Reference ID: comp_130932005317</i>)</p>                            |                                 |                                |                                      |                      |
| 3/8/2005  | IntegraMed America Inc          | Miscellaneous                  | In Vitro Fertilization Drugs         | not disclosed        |
| <p>IntegraMed America, Inc., the largest network of fertility medical practices in the United States, announced that a pharmaceutical component to its innovative Shared Risk(TM) Refund program that may reduce the cost of drugs used for in vitro fertilization (IVF) by 20 to 30 percent.</p> <p>Now, through an agreement between IntegraMed and Serono, Inc., part of the Serono Group, the world's largest manufacturers of infertility drugs, patients enrolled in the IntegraMed Shared Risk Refund Program will have exclusive access to special savings on fertility drugs. (<i>MedTRACK Reference ID: comp_12977200538</i>)</p>   |                                 |                                |                                      |                      |
| 1/10/2005   | The Medical House PLC           | Miscellaneous, Supply          | Needle-Free Injection Device         | not disclosed        |
| <p>Serono, the global biotechnology leader, is TMH's partner in a five year contract - starting with the first commercial supply - which may reach up to £4.3 million under which TMH will manufacture and supply a reusable, user filled needle-free injection device and related consumables. The state of the art needle-free injector is to be developed by TMH with development costs of £435,000 being contributed by Serono. The drug to be delivered is human growth hormone. Worldwide sales of this product, which was first registered in 1988, were more than \$240m in 2003. TMH will be able to provide the needle-free injector to pharmaceutical companies for the delivery of other drugs subject to certain Serono rights of first refusal. (<i>MedTRACK Reference ID: comp_120532005110</i>)</p>   |                                 |                                |                                      |                      |
| 11/15/2004  | Nautilus Biotech                | Commercialization, Development | Human Growth Hormone                 | 25.0                 |
| <p>Serono and protein evolution company Nautilus Biotech (Private) announced that they have signed an agreement under which Serono and Nautilus will work together to develop the next-generation of human growth hormone, with improved biological, pharmacological and clinical profiles. This improved version of human growth hormone would allow less frequent injections of this therapeutic protein which is currently administered daily.</p> <p>Under the terms of the agreement, Serono will receive an exclusive license to develop the next-generation human growth hormone and an exclusive option to license exclusive worldwide rights to develop, manufacture, and commercialize improved variants of the protein generated by Nautilus's rational evolution technology, a process mimicking natural evolution. (<i>MedTRACK Reference ID: comp_1014420041115</i>)</p>  |                                 |                                |                                      |                      |
| 10/27/2004  | Paratek                         | Commercialization,             | Multiple sclerosis                   | 38.0                 |

| Pharmaceuticals, Inc  |                             | Development                |                                      |               |
|---|-----------------------------|----------------------------|--------------------------------------|---------------|
| <p>Serono and Paratek Pharmaceuticals, Inc. announced that they have entered into an agreement to discover, develop and commercialize an orally-available disease modifying treatment for multiple sclerosis (MS). During the initial phase of their collaboration, Paratek and Serono will seek to identify for clinical development novel tetracycline derivatives from a library of non-antibiotic lead compounds discovered by Paratek chemists.</p> <p>Orally administered minocycline (an antibiotic tetracycline) was reported in a recently published clinical study to have a therapeutic benefit in the treatment of patients with relapsing-remitting MS1. The favorable safety profile of the tetracycline class is well documented, with a more than 30-year track record in the marketplace. Serono will be responsible for the worldwide development and commercialization of compounds arising from the collaboration. No orally administered disease-modifying drug is currently approved for the treatment of MS. (<i>MedTRACK Reference ID: comp_948220041027</i>)</p> |                             |                            |                                      |               |
| 10/26/2004  | Xantos Biomedicine AG       | Miscellaneous              | XantoScreen Technology               | not disclosed |
| <p>Xantos Biomedicine AG announced that it has signed an agreement with Serono, to discover new secreted proteins for diagnostics and drug candidates. Xantos will analyse proteins encoded by Serono's proprietary cDNA libraries and apply a cellular assay allowing the identification of only secreted factors. This program will be employed in XantoScreen, a high-throughput, fully automated gene isolation, transfection and assay system. Xantos will deliver to Serono a cDNA collection with single clones encoding these extracellular molecules with therapeutic and diagnostic relevance. (<i>MedTRACK Reference ID: comp_1058720041026</i>)</p>   |                             |                            |                                      |               |
| 10/8/2004   | Cyprotex                    | Miscellaneous              | Cloe PK, Cloe Screen, Drug Discovery | not disclosed |
| <p>Cyprotex announced it has entered into a year-long agreement to provide drug discovery support using its experimental service, Cloe Screen and its computational prediction technology, Cloe PK Europe's leading biotechnology company, Serono. (<i>MedTRACK Reference ID: comp_118932004108</i>)</p>  |                             |                            |                                      |               |
| 9/3/2004  | n/a                         | License                    | --                                   | not disclosed |
| <p>Serono announced that, in connection with the grant of a license under a non-core technology it is to receive a licence fee, payable in annual instalments over the next three years. The identity of the licensee was not disclosed. The license fee is non-refundable and non-cancellable, received instead of future ongoing royalties and will in accordance with International Financial Reporting Standards be recognized immediately as license income in Serono's third quarter 2004 results of operations. As a result, Serono will record exceptional royalty revenue of USD 67 million in the third quarter. (<i>MedTRACK Reference ID: comp_8279200493</i>)</p>  |                             |                            |                                      |               |
| 3/10/2004   | ProMetic Life Sciences Inc. | Collaboration, Development | Protein Purification Technology      | 1.3           |
| <p>ProMetic Life Sciences Inc. wholly owned subsidiary ProMetic Biosciences Ltd signed a development and collaboration agreement with Serono S.A. to provide Serono access to ProMetic's unique protein purification technology.</p> <p>Serono will fund the development of an affinity adsorbent to isolate and purify a protein of interest to Serono. A Mimetic Ligand will be selected from ProMetic's Intelligent Combinatorial Libraries and will be designed to enhance Serono's already rigorous therapeutic purification procedures. (<i>MedTRACK Reference ID: comp_59762004310</i>)</p>  |                             |                            |                                      |               |
| 11/18/2003  | CGI Pharmaceuticals, Inc.   | Miscellaneous, Research    | Analog Sensitive Kinase Alleles      | not disclosed |
| <p>Cellular Genomics announced the expansion of its ongoing joint kinase discovery program with Serono to now include the study of an additional kinase drug target of interest to Serono. Under the original collaborative research agreement announced in October of 2002, CGI is applying its proprietary chemical genetics technologies to four kinase drug targets selected by Serono. (<i>MedTRACK Reference ID: comp_260920031118</i>)</p>   |                             |                            |                                      |               |
| 4/3/2003  | Santhera Pharmaceuticals AG | Research                   | Drug Discovery, Small Molecule       | not disclosed |
| <p>Graffinity Pharmaceuticals AG has entered into a research collaboration with Serono S.A., Europe's leading biotechnology company, to discover novel therapeutics for the treatment of major diseases in a variety of fields including immunology and reproductive health.</p> <p>Note: On September 8, 2004 Privately held Graffinity Pharmaceuticals AG and MyoContract AG announced that the companies have merged to form Santhera (<i>MedTRACK Reference ID: comp_7208200343</i>)</p>  |                             |                            |                                      |               |
| 1/21/2003   | GeneProt                    | Miscellaneous              | Polypeptide Testing                  | not disclosed |
| <p>GeneProt Inc. announced that it has signed an agreement with Serono under which Serono will test a set of novel datamined polypeptides and proteins discovered and synthesized chemically by GeneProt. Serono has an option to obtain an exclusive license to any of polypeptides and proteins supplied by GeneProt under the agreement. Financial terms were not disclosed. (<i>MedTRACK Reference ID: comp_50682003121</i>)</p>  |                             |                            |                                      |               |
| 10/9/2002   | CGI Pharmaceuticals, Inc.   | Collaboration, Research    | Kinases                              | not disclosed |
| <p>Serono S.A. and Cellular Genomics Inc. announced a collaborative research agreement under the terms of which CGI will apply its chemical genetics technologies to four undisclosed target kinases selected by Serono. Under the agreement CGI will receive an undisclosed upfront fee and a series of milestone payments over a period of</p>  |                             |                            |                                      |               |

two years, and Serono will retain rights to acquire licenses to intellectual property arising from the collaboration. Under the terms of the agreement, CGI will use its ASKA technology to produce the modified kinases for Serono. CGI will also use its P-target technology for in-depth mapping of clinically important kinase signalling pathways of interest to Serono.

(MedTRACK Reference ID: comp\_8912002109)

|           |                     |         |                      |               |
|-----------|---------------------|---------|----------------------|---------------|
| 7/26/2002 | Ricerca Biosciences | License | Chlamydia Infections | not disclosed |
|-----------|---------------------|---------|----------------------|---------------|

Genset S.A. and Ricerca Biosciences, LLC announced an agreement under which Genset has granted to Ricerca Biosciences an exclusive worldwide license to all therapeutic applications resulting from Genset's patent applications covering the full-length genomic sequences of Chlamydia pneumoniae and Chlamydia trachomatis, two important infectious agents. (MedTRACK Reference ID: comp\_31532002726)

|          |                           |            |    |     |
|----------|---------------------------|------------|----|-----|
| 6/4/2002 | Columbia Laboratories Inc | Settlement | -- | 6.0 |
|----------|---------------------------|------------|----|-----|

Serono S.A. announced that the company has settled its lawsuit against Columbia Laboratories related to the recall of Crinone (progesterone gel) which took place in April 2001 and Columbia's counterclaims against Serono. Under the terms of the settlement, the two companies released claims against each other and Columbia will compensate Serono for a total of \$6 million. The \$6 million settlement comprises both free product shipped to Serono for relaunch of Crinone in the US as well as a promissory note from Columbia to Serono for \$3.96 million to be paid over an 18-month period to cover additional recalled product and out-of-pocket costs related to the recall. (MedTRACK Reference ID: comp\_895200264)

|           |                     |         |                  |               |
|-----------|---------------------|---------|------------------|---------------|
| 3/12/2002 | Ricerca Biosciences | License | Drug development | not disclosed |
|-----------|---------------------|---------|------------------|---------------|

Genset SA and Ricerca LLC have announced that the RAP-3 cancer -associated gene , discovered at Genset, will be licensed to Ricerca. This drug candidate will allow Ricerca to initiate an oncology drug discovery program. Ricerca intends to use RAP-3 as a drug target as well as explore the possibility of developing RAP-3 as a novel protein therapeutic. (MedTRACK Reference ID: comp\_31522002312)

|            |  |               |                |               |
|------------|--|---------------|----------------|---------------|
| 12/20/2001 | Celera Genomics Group<br>Applera Corporation | Miscellaneous | Bioinformatics | not disclosed |
|------------|--|---------------|----------------|---------------|

Celera Genomics, an Applera Corporation business, announced today that Serono S.A. , signed a multi-year subscription agreement to Celera's proprietary genomic databases. (MedTRACK Reference ID: comp\_243520011220)

|          |                  |               |                 |               |
|----------|------------------|---------------|-----------------|---------------|
| 7/1/2001 | Inpharmatica Ltd | Collaboration | Protein Therapy | not disclosed |
|----------|------------------|---------------|-----------------|---------------|

In July 2001, Serono entered into an agreement with Inpharmatica Ltd, focused on the discovery of novel protein therapeutics. Inpharmatica's scientists predict protein function using sequence and structure relationships of proteins (structural bioinformatics), thereby providing a rational basis for the identification of novel drug targets. (MedTRACK Reference ID: comp\_5598200171)

|           |                            |                         |                        |               |
|-----------|----------------------------|-------------------------|------------------------|---------------|
| 6/20/2001 | Atugen AG<br>SR Pharma plc | Collaboration, Research | Gene target validation | not disclosed |
|-----------|----------------------------|-------------------------|------------------------|---------------|

atugen AG, a functional genomics company in the field of therapeutic gene discovery and validation, announced a collaboration with the Serono Pharmaceutical Research Institute (SPRI), a division of Serono S.A., Switzerland, to utilize atugen's rapid, high quality gene target validation services.

Under the terms of the agreement, atugen will optimize delivery of GeneBlocs to certain cell lines provided by Serono, with the aim of inhibiting expression of gene targets selected by Serono. Delivery of GeneBlocs to the cell lines, and the degree to which expression of the target gene is reduced, will be monitored by quantitative RNA analysis technology. atugen will screen a number of GeneBlocs against each target to select for optimal inhibition of gene expression. The most active GeneBlocs, together with proprietary delivery vehicles and protocols, will be transferred to Serono for further phenotypic analysis. (MedTRACK Reference ID: comp\_112492001620)

|           |            |               |                              |               |
|-----------|------------|---------------|------------------------------|---------------|
| 4/26/2001 | Evotec OAI | Miscellaneous | Biological Assay Development | not disclosed |
|-----------|------------|---------------|------------------------------|---------------|

Evotec OAI, Hamburg, Germany a supplier of integrated high-value added biological, chemical and screening programmes to the pharmaceutical and bio-technology industries, has announced a services agreement with Serono S.A. Evotec OAI will develop a novel biological assay for one of Serono's cellular targets using its proprietary VLiPT technology. After the successful development of this assay, Evotec OAI will perform screening and compound profiling using its EVOscreenr technology to identify chemical compounds that mimic one of Serono's proprietary proteins. Many of the 200,000 compounds to be tested have been synthesised by Evotec OAI for Serono in a separate combinatorial chemistry programme started in 1998.

(MedTRACK Reference ID: comp\_89522001426)

|          |  |               |                |               |
|----------|--|---------------|----------------|---------------|
| 1/9/2001 | Celera Genomics Group<br>Applera Corporation | Miscellaneous | Bioinformatics | not disclosed |
|----------|--|---------------|----------------|---------------|

Celera Genomics, an Applera Corporation business, and Genset S.A. , announced that Genset has signed a multi-year subscription agreement to Celera's databases. Genset researchers will use Celera's integrated database products, bioinformatics systems, and other discovery tools in conducting their genomics research and will access Celera's products through the web-based Celera Discovery System. Financial terms of the agreement were not disclosed. (MedTRACK Reference ID: comp\_2409200119)

|            |                            |                                     |                    |      |
|------------|----------------------------|-------------------------------------|--------------------|------|
| 12/12/2000 | Vertex Pharmaceuticals Inc | Development, Marketing, Termination | Caspase Inhibitors | 95.0 |
|------------|----------------------------|-------------------------------------|--------------------|------|

Vertex Pharmaceuticals Incorporated and Serono S.A. announced that they have entered into a collaboration to

discover, develop, and market caspase inhibitors. Caspase inhibitors are a class of compounds with the potential to treat serious neurological and inflammatory diseases. Under the terms of the agreement, Vertex could receive up to \$95 million to support and expand Vertex's drug discovery activities in the caspase protein family, including milestone payments as drug candidates move through development. The two companies expect to select a first drug development candidate in 2001.

Note : In May 2004, Serono terminated that agreement in accordance with its terms, effective September 30, 2004. (MedTRACK Reference ID: comp\_90420001212)

|            |            |               |                             |               |
|------------|------------|---------------|-----------------------------|---------------|
| 10/19/2000 | Evotec OAI | Miscellaneous | Pharmaceuticals Development | not disclosed |
|------------|------------|---------------|-----------------------------|---------------|

Oxford Asymmetry International plc ("OAI"), a part of EVOTEC BioSystems AG (EVOTEC), Hamburg, Germany, and one of the world's leading providers of sophisticated chemical services to the pharmaceutical industry, announces a one year, £1.4 million contract with Serono S.A. one of Europe's leading biotechnology companies. This contract extends an original two year agreement announced in October 1998. OAI will supply chemical libraries for use by Serono at their research sites in Geneva and Boston. The new libraries will primarily be for lead optimisation, but also continue to facilitate the lead discovery and development of new pharmaceuticals and reinforce Serono's strength in its strategic therapeutic areas. (MedTRACK Reference ID: comp\_893820001019)

|          |   |               |                               |               |
|----------|---|---------------|-------------------------------|---------------|
| 8/1/2000 | IsoTis OrthoBiologics<br>Modex Therapeutics Ltd | Miscellaneous | Protein Expression Technology | not disclosed |
|----------|---|---------------|-------------------------------|---------------|

Serono will fund R&D at Modex Therapeutics to develop protein expression technology.

Serono will own the technology, and will pay Modex milestones and royalties from third party licenses. Modex is developing tissue repair, replacement, and engineering products, and is building a technology base that includes encapsulated cell therapy, outer root sheath (a skin regeneration method using cells from hair shafts), and cell growth control.

Note : Modex Therapeutics was merged with IsoTis on December 9th, 2002. (MedTRACK Reference ID: comp\_17473200081)

|          |                                     |                     |          |               |
|----------|-------------------------------------|---------------------|----------|---------------|
| 7/1/2000 | Johnson & Johnson<br>Centocor, Inc. | License, Settlement | Antibody | not disclosed |
|----------|-------------------------------------|---------------------|----------|---------------|

Serono announced that it had signed a license agreement with Centocor, Inc. ("Centocor"), in respect of patents covering monoclonal antibodies to tumor necrosis factor (TNF). Centocor has been granted the license as part of a settlement of litigation filed by Serono against Centocor in the District Court of The Hague, The Netherlands.

NOTE: Through a merger completed on October 6, 1999, Centocor became a wholly owned subsidiary of Johnson & Johnson. (MedTRACK Reference ID: comp\_9490200071)

|          |                     |         |          |               |
|----------|---------------------|---------|----------|---------------|
| 7/1/2000 | Abbott Laboratories | License | Antibody | not disclosed |
|----------|---------------------|---------|----------|---------------|

Serono announced that it had signed a license agreement with Knoll AG ("Knoll"), in respect of patents covering monoclonal antibodies to tumor necrosis factor (TNF). (MedTRACK Reference ID: comp\_9493200071)

|          |            |         |                                    |               |
|----------|------------|---------|------------------------------------|---------------|
| 5/4/2000 | Axonyx Inc | License | Anti-Amyloid Peptide<br>Technology | not disclosed |
|----------|------------|---------|------------------------------------|---------------|

Axonyx Inc. announced that the Swiss-based biotechnology company, Ares Serono, exercised its right to license Axonyx's novel platform anti-amyloid peptide technology. This technology has shown potential to yield pharmaceutical compounds for treating Alzheimer's Disease and other disorders associated with abnormal or toxic protein formation including Mad Cow Disease. Ares Serono's decision to proceed to this next step of the Companies' ongoing collaborative partnership triggers final negotiation of a world-wide exclusive licensing agreement, the outline of which has already been agreed upon. Under this proposed agreement, Ares Serono will produce and develop drug compounds for the treatment of Alzheimer's Disease and other neurodegenerative disorders. (MedTRACK Reference ID: comp\_10786200054)

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|-----------|--|---------------|---------------|---------------|
| 4/13/2000 | Genset SA<br>Sanofi-Aventis<br>Sanofi-Synthelabo | Collaboration | CNS Disorders | not disclosed |
|-----------|--|---------------|---------------|---------------|

Genset S.A. forms an agreement with Sanofi-Synthelabo to pursue a pharmacogenomics collaboration aimed at lead selection and optimization for an undisclosed CNS disease.

(MedTRACK Reference ID: comp\_53322000413)

|           |                              |               |                      |               |
|-----------|------------------------------|---------------|----------------------|---------------|
| 3/27/2000 | CeNeS Pharmaceuticals<br>Plc | Collaboration | Fertility treatments | not disclosed |
|-----------|------------------------------|---------------|----------------------|---------------|

CeNeS Pharmaceuticals plc announced that it has signed a drug delivery collaboration with the pharmaceutical multinational Ares-Serono, global leader in fertility treatments, based in Switzerland. This is the second collaboration signed this year by CeNeS' Scotland based drug delivery division. CeNeS will utilise its portfolio of drug delivery technologies to generate a novel formulation of a new fertility drug currently in development at Ares Serono. CeNeS' prolonged release gel systems and injection technologies will be used to direct Serono's fertility drug to its site of action in the body. (MedTRACK Reference ID: comp\_61522000327)

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|----------|----------------------------------|----------|------------------|---------------|
| 3/2/2000 | Genset SA<br>Abbott Laboratories | Research | Type II diabetes | not disclosed |
|----------|----------------------------------|----------|------------------|---------------|

Genset S.A. and Abbott Laboratories have signed a new collaborative research agreement to discover genes

|  |   |                                  |                           |               |
|--|---|----------------------------------|---------------------------|---------------|
| associated with bipolar disorder and Type II diabetes.   |   |                                  |                           |               |
| <i>(MedTRACK Reference ID: comp_5329200032)</i>  |   |                                  |                           |               |
| 2/8/2000   | Corixa Corporation<br>GlaxoSmithKline plc                   | Collaboration                    | --                        | not disclosed |
| Corixa Corporation and Genset announced that the companies have entered into an agreement pursuant to which Genset will sequence the genome of an undisclosed organism. <i>(MedTRACK Reference ID: comp_2092200028)</i>  |   |                                  |                           |               |
| 1/27/2000  | Zenyth Therapeutics<br>Limited                              | Development                      | Infertility               | not disclosed |
| Ares-Serono, one of the world's leading biotechnology companies, and Australia-based AMRAD, a pharmaceutical research and development company, announced that they have signed an exclusive agreement with a view to developing a novel treatment for infertility. <i>(MedTRACK Reference ID: comp_64522000127)</i>  |   |                                  |                           |               |
| 1/11/2000  | Genset SA<br>Whitehead Institute for<br>Biomedical Research | Collaboration, Research          | Obesity, Diabetes         | not disclosed |
| Genset S.A. and the Whitehead Institute for Biomedical Research have entered into a sponsored research and collaboration agreement to discover and characterize genes involved in obesity and diabetes. In addition, Genset received an exclusive license to Whitehead's issued U.S. patent entitled "DNA Encoding a Novel Serum Protein Produced Exclusively in Adipocytes". Genset's evaluation of polymorphisms in the human gene encoding this protein known as Acrp30, as well as other genes in the same pathway, indicates that Acrp30 contributes to obesity and Type II diabetes. <i>(MedTRACK Reference ID: comp_53252000111)</i>  |   |                                  |                           |               |
| 11/1/1999  | Genset SA<br>French Atomic Energy<br>Commission (CEA )      | Co-development,<br>Collaboration | Genotyping Tool           | not disclosed |
| In a two-year collaboration, Genset SA (genomics) and the French Atomic Energy Commission (Commissariat à l'Énergie Atomique--CEA) hope to jointly develop an integrated, large-capacity microprocessor, that at a low cost and by consuming minimal quantities of DNA and reagents, can perform large-scale genotyping for use in accelerating gene and marker discovery and analysis.  |   |                                  |                           |               |
| Each will use the results of the research in their own internal research programs and plan to file patent applications. Once the collaboration is concluded, the partners will commercialize through a joint venture, develop with other partners, or independently market the resulting products, with Genset retaining exclusive genotyping rights. When the microfluidics, microelectronic, and microthermics technologies are validated for genotyping that relates to industries such as genetics, biology, and chemistry, Genset hopes to expand the scope of this platform to uses such as high-throughput screening, combinatorial chemistry, and toxicology studies. The CEA is a public French research organization that contributes to national technological research and to the transfer of high technologies to industries. <i>(MedTRACK Reference ID: comp_174711999111)</i> |   |                                  |                           |               |
| 10/18/1999   | Wyeth<br>Genset SA  | Miscellaneous                    | Software                  | not disclosed |
| Genset S.A. has signed a new gene libraries agreement with the Genetics Institute (GI) unit of Wyeth-Ayerst Laboratories, the pharmaceutical division of American Home Products Corporation, and is launching a direct marketing initiative. <i>(MedTRACK Reference ID: comp_532419991018)</i>   |   |                                  |                           |               |
| 9/8/1999   | Sangamo BioSciences<br>Inc<br>Genset SA                     | Collaboration, Research          | --                        | not disclosed |
| Sangamo BioSciences announced that it has signed a collaborative research agreement with Genset SA. Under the agreement, Sangamo will provide specific Universal GeneTools to Genset for use in their target validation programs. <i>(MedTRACK Reference ID: comp_9130199998)</i>  |   |                                  |                           |               |
| 7/1/1999   | Karo Bio AB   | License                          | BioKey Peptide Technology | not disclosed |
| In exchange for research funding, developmental milestones, and sales royalties, Novalon (small-molecule drug discovery) will develop and validate assays for Ares-Serono's (reproductive health, metabolic disorders, and immunology) protein targets, using its BioKey peptide technology.   |   |                                  |                           |               |
| In addition, Ares-Serono will grant Novalon exclusive worldwide rights to certain patents and applications covering the design, synthesis, and encoding of peptides, peptoids, and other chemical compounds. BioKeys, which Novalon identifies via its biopolymer libraries, are peptides that are selective and specific for the active sites on target proteins. They are used in screens to identify small-molecule lead compounds that may be optimized for pharmaceuticals. According to Novalon, Ares-Serono's technology is complementary to its own intellectual property, and will allow it to identify BioKeys that are made up of non-natural amino acids and other chemicals that may be used for drug screening or serve as small-molecule leads.   |   |                                  |                           |               |
| Note: On May 2000 Karo Bio AB acquired Novalon Pharmaceutical Corporation. <i>(MedTRACK Reference ID: comp_16913199971)</i>  |   |                                  |                           |               |
| 5/26/1999  | Genset SA<br>Algene Biotechnologies<br>Corporation          | Research                         | Alzheimer's disease       | not disclosed |

|  |  |               |   |               |
|--|--|---------------|---|---------------|
| Genset S.A. and Algene Biotechnologies Corporation have entered into a strategic alliance for research into Alzheimer's disease. ( <i>MedTRACK Reference ID: comp_53231999526</i> )  |  |               |   |               |
| 5/1/1999   | Genset SA<br>The Johns Hopkins University                                    | Research      | Schizophrenia   | not disclosed |
| Genset (genomics) and Johns Hopkins University signed a two-year research agreement to search for genes related to schizophrenia.  |  |               |   |               |
| The partners will combine Genset's single nucleotide polymorphism technology with the university's bank of 1,800 schizophrenia DNA samples. The samples come from over 300 families which had one or more member that suffered from the disorder. The research will be led by JHU's Dr. Ann Pulver, who has been studying schizophrenia for 20 years. ( <i>MedTRACK Reference ID: comp_17424199951</i> )   |  |               |   |               |
| 2/1/1999   | Chiron Corporation<br>PowderJect Pharmaceuticals PLC                         | Miscellaneous | Immunology, PowderJect System, Reproductive Health          | 101.1         |
| PowderJect Pharmaceuticals (drug delivery) will reformulate five Ares-Serono proteins for delivery via its PowderJect system for potential therapeutics in the areas of immunology and reproductive health.  |  |               |   |               |
| Ares-Serono will pay (uf)\$11.1mm up front--\$1.1mm in cash and \$10mm in equity for a 1.4% stake in PowderJect (a (pr)20% premium). It will fund R&D and clinical trials and pay up to \$90mm in additional license fees and development milestones over a period of three years. Ares-Serono will also pay royalties of 6% to 12% on the sale of any resulting products. PowderJect will manufacture and supply the devices, which painlessly deliver dry powder drug formulations through the skin by accelerating the particles to supersonic speed.   |  |               |   |               |
| Note : PowderJect was acquired by Chiron on July 3rd, 2005. ( <i>MedTRACK Reference ID: comp_17423199921</i> )   |  |               |   |               |
| 10/1/1998  | Genset SA<br>Pfizer Inc<br>Pharmacia & Upjohn, Inc.<br>Pharmacia Corporation | Research      | Markers and Genes, Pharmacogenomics                         | not disclosed |
| Pharmacia & Upjohn will work with French pharmacogenomics biotech Genset SA to find markers and genes that respond to an unidentified P&U compound.  |  |               |   |               |
| The biotech will use its high-resolution biallelic marker map to analyze samples from P&U clinical trials. The companies will then identify responders vs. non-responders to help identify which patients will respond to the drug. ( <i>MedTRACK Reference ID: comp_132011998101</i> )  |  |               |   |               |
| 8/1/1998   | Genset SA<br>Wyeth<br>Wyeth-Lederle  | License       | Genomic data  | 15.0          |
| American Home Products' Wyeth-Lederle Vaccines unit licensed exclusive rights to vaccine uses of certain genomic data from French genomics company Genset SA.  |  |               |   |               |
| The rights cover know-how and patent applications from Genset's sequencing of chlamydia pneumoniae and chlamydia trachomatis L2; the former may be responsible for coronary artery disorders as well as respiratory disease. Genset could get up to \$15mm in licensing fees and milestone payments, and will receive royalties on sales of any products that Wyeth develops using the technology. ( <i>MedTRACK Reference ID: comp_13315199881</i> )  |  |               |   |               |
| 12/3/1997  | Celgene Corporation  | Collaboration | Asthma, Multiple Sclerosis, Psoriasis, Rheumatoid Arthritis | not disclosed |
| Ares-Serono and Signal Pharmaceuticals, Inc. announced the formation of a multi-year collaboration to identify small molecule modulators of the NF-KB gene regulation pathway. Gene regulation pathways transmit biological information from a cell's surface to its nucleus, where specific genes are activated or inhibited. NF-KB is a key regulator of a broad set of inflammatory genes, including TNF, IL-1 and cell adhesion molecules, which give rise to autoimmune and inflammatory diseases such as rheumatoid arthritis, multiple sclerosis, asthma and psoriasis. There is emerging scientific evidence that NF-KB is also an important regulatory pathway in the pathogenesis of neurodegenerative and cardiovascular diseases and cancer. |  |               |   |               |
| Note: On January 9, 2000 Celgene Corporation Announces Completion Of its merger with Signal Pharmaceuticals. ( <i>MedTRACK Reference ID: comp_167191997123</i> )   |  |               |   |               |
| 10/1/1997  | Genset SA<br>Royal College of Surgeons in Ireland                            | Collaboration | Cardiovascular Disease                                      | not disclosed |
| Genset and the Royal College of Surgeons in Ireland have announced a collaboration to perform large-scale cardiovascular genomic research programs based on association studies.   |  |               |   |               |
| The collaboration is the first large scale human genomics study in the field of cardiovascular disease. Genset will combine its mapping technology with the recruitment capability and phenotyping expertise of RCSI for the discovery of genes and molecular pathways implicated in cardiovascular diseases. As part of the collaboration, Genset and RCSI have formed Surgen, a 50-50 owned dedicated joint venture located in Dublin. Surgen will   |  |               |   |               |

collect and store samples, conduct DNA extraction, cell immortalization, and all operations connected with the DNA bank. Genset will have exclusive access to this DNA bank to conduct its gene discoveries and pharmacogenomics studies and will own all rights and data generated from its studies.

Note : On Dec-2001 Genset sold its 50% interest in the JV; RCSI now operates Sugen as a 100% owned subsidiary. (*MedTRACK Reference ID: comp\_174191997101*)

|   |  |               |  |               |
|---|--|---------------|--|---------------|
| 7/1/1997  | Abbott Laboratories<br>Genset SA                             | Research      | Genes  | 42.5          |
| Genset and Abbott will collaborate in pharmacogenomics, designing a system to analyze genetic variations in patients' responses to drugs. The technology can be used to customize drugs for specific subsets of the population.   |  |               |  |               |
| Genset will develop a high-density bi-allelic marker map of the human genome and identify genes and markers associated with response to pharmaceutical compounds. Abbott buys \$20mm in Genset equity ((uf)\$10mm up front) and another \$10mm, milestone-based, after a year) and will pay up to \$22.5mm (18 months of R&D plus milestones) for Genset to study a specific Abbott compound. Genset gets royalties on both the drug and any diagnostic assays Abbott develops to test specific drugs. The partners plan to co-promote similar projects to third parties, analyzing their late-stage and marketed products. In these deals, they would share the R&D money, milestones, and royalties in proportion to their technology contribution. |  |               |  |               |
| On May-2000: Genset exercised its put option to issue \$10mm of its equity to Abbott. Abbott gets 54.7k Genset ordinary shares at \$60.87 each. ( <i>MedTRACK Reference ID: comp_14563199771</i> )  |  |               |  |               |
| 6/1/1997  | Genset SA<br>Technion Israel Institute<br>of Technology      | Research      | Common Diseases, DNA<br>Analysis                                     | not disclosed |
| Genset (French genomics company) entered a two-year research alliance with Technion Israel Institute of Technology's Bruce Rappaport Faculty of Medicine, which will collect and analyze DNA from patients in Israel afflicted with common diseases.  |  |               |  |               |
| Genset said a special emphasis will be placed on collecting samples from large pedigrees within homogenous populations. The initial diseases to be studied are cancer, cardiovascular, CNS and bone diseases. Genset gets exclusive worldwide rights to any targets discovered. The research will be conducted at the Institute's Tamkin Human Molecular Genetics Facility at Haifa under the direction of Dr. Nadine Cohen-Elbaz. The Technion Institute is Israel's largest center of applied research and comprises 40 research institutes and nine multidisciplinary centers. ( <i>MedTRACK Reference ID: comp_17412199761</i> )  |  |               |  |               |
| 3/1/1997  | Genset SA<br>French National Institute<br>of Health (INSERM) | Miscellaneous | Molecular Physiology And<br>Pathology                                | 0.0           |
| French genomics company Genset and INSERM (the French National Institute of Health) have preliminarily agreed to establish a joint laboratory for research in molecular physiology and pathology at the University of Rennes.   |  |               |  |               |
| The partners will contribute \$12mm (FF60mm) over the course of the three-year term. INSERM and Genset will jointly own any technology that comes out of the laboratory, with Genset holding exclusive worldwide commercial rights to the discoveries and INSERM receiving royalties on anything commercialized. The research will focus on using mouse models for functional analysis of genes identified using Genset's integrated genomics technologies. ( <i>MedTRACK Reference ID: comp_17403199731</i> )  |  |               |  |               |
| 8/1/1996  | BASF Aktiengesellschaft                                      | Manufacturing | Human Growth Hormone   | not disclosed |
| BASF Bioresearch (drug discovery and preclinical research in immunology and cancer) agreed to manufacture Ares-Serono's mammalian cell-derived recombinant human growth hormone (hGH) for commercial production.  |  |               |  |               |
| Ares-Serono received FDA approval for hGH to treat children with growth hormone deficiency (it is already approved in 60 countries) and is also being used in the US, under a Treatment IND, for AIDS wasting. Ares-Serono expects that by the year 2000, 90% of its sales will be derived from biotechnology products. ( <i>MedTRACK Reference ID: comp_17390199681</i> )  |  |               |  |               |
| 9/1/1994  | Cangene Corporation  | Collaboration | Cangenus Technology,<br>Malignant Disorders,<br>Recombinant Proteins | not disclosed |
| Cangene Corp. paid an undisclosed lump-sum figure for a three-month collaboration with Ares-Serono subsidiary, Ares Advanced Technology to study the feasibility of manufacturing a protein-based drug using Cangene's patented Cangenus technology.  |  |               |  |               |
| Cangene hopes to validate and capitalize on the value of Cangenus by using it to manufacture proteins for other companies. The technology involves producing recombinant proteins through a soil bacterium called <i>Streptomyces</i> , which secretes the targeted protein, making it easier to purify. The study will focus on a recombinant protein with potential in treating septic shock, inflammatory and malignant disorders, which is an area of focus for Ares-Serono. The partners have the option to negotiate a joint venture should the study be successful.  |  |               |  |               |

Note: On May 2000 Ares Serono changed name to Serono. (*MedTRACK Reference ID: comp\_15384199491*)

|   |   |   |   |               |
|---|---|---|---|---------------|
| 6/1/1994  | Genset SA<br>Genethon   | Collaboration                           | Genome Research,<br>Sequencing And Mapping  | not disclosed |
| Genset (Paris-based biotech) will collaborate with Genethon, the French non-profit genome research organization, on the sequencing and mapping of the regulatory regions of the human genome.   |   |   |   |               |
| The research will be conducted in a jointly-established laboratory called Tres Grand Sequencage Laboratory. Genset will hold all commercialization rights to the discoveries made in the three-year collaboration. The companies will exclusively focus on the regulatory region of the human genome, which makes up the 5% of the entire genome that actually activates genes and their expression. ( <i>MedTRACK Reference ID: comp_17370199461</i> ) |   |   |   |               |
| 1/1/1992  | Genset SA<br>Centre Nationale de la<br>Recherche Scientifique | Collaboration,<br>Development, Research | Ribozymes And Antisense<br>Oligonucleotides | not disclosed |
| Genset (French biotech founded 1989 to develop synthetic nucleic acids for diagnostic and therapeutic applications) and the Centre Nationale de la Recherche Scientifique will collaborate on the development of ribozymes and antisense oligonucleotides.  |   |   |   |               |
| The research will focus on antiviral therapeutics including molecules against c-myc, SV 40T Antigen and HIV tat gene, and the coupling of these molecules to ply-L-lysine. Genset will have commercial rights to any products which emerge from the collaboration for six years. Research will be conducted at the University Montpellier II. ( <i>MedTRACK Reference ID: comp_17364199211</i> )  |   |   |   |               |

## M&A Stats

| Date  | Acquirer/Merger Partner | Target/Merger Partner       | Reason                 |
|---|-------------------------|-----------------------------|------------------------|
| 6/13/2003   | Serono S.A. (SRA)       | Genset S.A.                 | Acquisition            |
| On June 16th 2003, Serono S.A. announced the completion of the acquisition of all the previously outstanding shares and convertible bonds (known as OCEANes) of Genset S.A.. As a result, Serono France Holding now owns 100% of the Genset share capital. Genset shares and OCEANes have been delisted from the Euronext market.   |                         |                             |                        |
| 3/1/1996  | Serono SA (SRA)         | Istituto Farmacologico      | Acquisition Agreements |
| Ares-Serono filed an application with the Italian stock exchange to acquire the remaining listed shares of Istituto Farmacologico Serono that it doesn't already own. Ares-Serono currently holds a 73% stake in IFS, and IFS owns 3% of its own shares.  |                         |                             |                        |
| The total value of the offer is \$47.1mm. Ares-Serono will transfer one Ares-Serono share and approximately \$744 in cash (1.187 million lire) for every 150 IFS ordinary shares, or 20,923 bearer shares. The exchange represents a 44% premium to the price the day of the announcement. The offer will become irrevocable when 2.486 million IFS shares are exchanged, or 18.9%.   |                         |                             |                        |
| 5/1/1994  | Serono SA (SRA)         | Interpharm Laboratories Ltd | Acquisition Agreements |
| Ares-Serono has begun a tender offer for at least 75% of the publicly-held shares of InterPharm Labs, Ares' 76.3%-owned subsidiary which manufactures Frone (beta interferon) in Israel, at \$22 per share.   |                         |                             |                        |
| If current holders tender at least 90% of the outstanding shares, Ares may purchase all remaining shares under provisions of Israeli law. Should this occur, Ares will pay roughly \$32.6 million in total at the tender price, suggesting a value of \$137.4 million for InterPharm as a whole. Since InterPharm earned \$5.1 million on 1993 sales of \$50.1 million, the tender price indicates a price-to-sales ratio of 2.74 and a price-to-earnings ratio of 26.9. Ares foresees biotechnology products such as Frone providing 90% of its sales by the end of this decade. The \$22 per share price is 76% over the closing NASDAQ price for InterPharm shares in trading on May 5, the day prior to commencement of the tender. |                         |                             |                        |
| 3/1/1994  | Serono S.A (SRA)        | Laboratorios Filaxis SA     | Acquisition Agreements |
| Swiss-based Ares-Serono has acquired 75% of Laboratorios Filaxis SA, an Argentinian company focused on the development of pharmaceuticals with indications in cancer and AIDS.  |                         |                             |                        |
| Ares-Serono also gains the option to acquire the remaining 25% from shareholders. Filaxis, with '93 sales of \$5 million, has ongoing agreements with the Universidad Nacional del Litoral and the National Research Council for assistance with product development and quality control assessment. This acquisition reflects Ares-Serono's intention to strengthen its South American presence. It also plans to launch a Colombian subsidiary shortly.   |                         |                             |                        |

## Recent Partnering Updates

10/26/2005 (Category: Deals & Alliances)

On October 25, 2005 Rigel Pharmaceuticals, Inc. and Serono announced that they have signed an agreement under which Serono has been granted an exclusive license to develop and commercialize product candidates from Rigel's Aurora kinase inhibitor program. The license is worldwide, except for Japan, which Serono has an option to include at any time within the next two years. Under the terms of the agreement, Rigel will receive initial payments totaling \$25 million, comprised of a license fee of \$10 million and purchase of \$15 million of Rigel's common stock, at a premium to the market price. With additional development and sales-based milestone payments for R763, Rigel could receive up to \$160 million in total, as well as royalties on any eventual product sales of R763 and other Aurora kinase inhibitors developed under the agreement.

**10/19/2005** (Category: Deals & Alliances)

On October 18, 2005 Galapagos announced that its services division BioFocus has reached agreement with the Swiss pharmaceutical company Serono to supply biologically directed library compounds from its SoftFocus collection throughout 2005-2006 for Serono's emerging drug discovery programs. Furthermore, medicinal chemistry services already being provided by BioFocus will be expanded further to accelerate Serono's existing programs. The unique combination of BioFocus' and Serono's capabilities have proven to be highly fruitful, and it is envisaged that this increased collaboration will lead to further drug discovery programs between the two companies. Under the terms of the agreement, Galapagos will receive technology access fees for library compounds, plus a fee-for-service component for medicinal chemistry services.

**8/19/2005** (Category: Deals & Alliances)

On August 18, 2005 Serono and Genmab A/S announced an agreement under which Genmab has granted Serono exclusive worldwide rights to develop and commercialize Genmab's HuMax-CD4. HuMax-CD4 is a fully human monoclonal antibody in development for the treatment of cutaneous and non-cutaneous T-cell lymphomas. Under the terms of the agreement, Genmab will receive a license fee of USD 20 million, and Serono will make a USD 50 million investment in Genmab common stock, at a premium to the market price. Genmab may receive up to USD 215 million in total payments, including the initial license fee and equity purchase, milestone payments for regulatory submissions and approvals of HuMax-CD4 in CTCL and NCTCL in the US, Europe and Japan, and payments based on the achievement of certain sales milestones. Genmab will be entitled to receive royalties on global sales of HuMax-CD4. Serono will be responsible for all future development costs for HuMax-CD4 and for future manufacturing of the product. Genmab will continue to conduct the ongoing clinical trials as described above.

**6/15/2005** (Category: Deals & Alliances)

On June 14, 2005 Serono, Inc. and Priority Healthcare Corporation announced the formation of a strategic alliance, under which both companies will offer the fertility marketplace expanded and unprecedented support to consumers, patients, healthcare providers and managed care organizations. Under the agreement, Freedom Drug will become the preferred specialty pharmacy for fulfillment of Serono fertility products dispensed in the United States. The companies will also develop new fertility awareness and patient education programs to be offered through Serono's Fertility LifeLines, a free and confidential information and support service available at 1-866-LETS-TRY. Serono and Freedom Drug will promote these enhanced support services to consumers, patients, healthcare providers and managed care organizations through the alignment of marketing and sales activities. Financial terms of the agreement were not disclosed.

**5/18/2005** (Category: Deals & Alliances)

On May 17, 2005 Serono and NovImmune (private) announced that they have signed an exclusive agreement under which NovImmune has granted Serono exclusive worldwide rights to develop and commercialize two of NovImmune's fully human monoclonal antibodies, NI-0401 and NI-0501, which may have therapeutic potential in a broad range of autoimmune diseases. Under the terms of the agreement, NovImmune is responsible for the development of the two products until the completion of Phase IIa clinical trials, after which Serono will take over further development. Serono will pay a license fee of \$5 million for the two products, make a CHF 7.5 million equity investment in NovImmune, and lend NovImmune up to CHF 7.5 million, convertible into shares of NovImmune on certain conditions or repayable with accrued interest at maturity. Based on the successful development and initial registration of the products, NovImmune may receive up to \$105 million in future milestone payments. In addition, NovImmune may receive further milestone payments based on approval of the products for additional indications, and will also be entitled to receive undisclosed royalties based on eventual net sales of the products.

**5/17/2005** (Category: Deals & Alliances)

On May 16, 2005 BioMarin Pharmaceutical Inc. and Serono announced that they have formed a strategic alliance for the further development and commercialization of two BioMarin product candidates, Phenoptin (sapropterin hydrochloride) and Phenylase (phenylalanine ammonia lyase). Both products have shown potential in the treatment of phenylketonuria (PKU), and there is preliminary clinical evidence that suggests that the active ingredient in Phenoptin, a synthetic form of the naturally occurring enzyme cofactor 6R-BH4, may also be useful in the treatment of other serious diseases, including diabetes and cardiovascular diseases. By the terms of their agreement, Serono acquires exclusive rights to market the products in all territories outside the United States and Japan. BioMarin retains exclusive rights to market the products in the United States. Serono will make an upfront payment of \$25 million to BioMarin, and will make additional milestone payments of up to \$232 million based on the successful development and registration of both products in multiple indications, of which \$45 million are associated specifically with Phenoptin in PKU. Serono will also pay BioMarin undisclosed royalties on its net sales of the products. The companies will share equally all development costs following successful completion of Phase II trials for each product candidate in each indication.

**5/3/2005** (Category: Deals & Alliances)

On May 2, 2005 Serono and Genmab A/S announced that they have signed an agreement under which Genmab grants Serono exclusive worldwide rights to develop and commercialize Genmab's HuMax-TAC. The product is a fully human monoclonal antibody targeting the TAC antigen - also known as CD25, or the interleukin-2 receptor alpha subunit (IL-2Ra) - which is overexpressed by activated T-cells. By inhibiting the proliferation of T-cells, HuMax-TAC may have therapeutic potential in the treatment of T-cell mediated diseases, such as autoimmune

disorders, inflammatory and hyperproliferative skin disorders, as well as acute transplant rejection. HuMax-TAC is currently in pre-clinical trials. Under the agreement, Genmab will receive an upfront payment of US\$2 million and is entitled to potential milestone payments of up to US\$38 million and royalties on sales from any eventual commercialization of the product. Serono will be responsible for all future development costs for HuMax-TAC.

**4/1/2005** (Category: Deals & Alliances)

On March 31, 2005 Serono and Syntonix Pharmaceuticals Inc. announced that they have entered into an agreement under which Serono has licensed worldwide exclusive rights to Syntonix' Transceptor and Synfusion technologies for the development and commercialization of interferon-beta:Fc products. Under the terms of the agreement, Serono will be responsible for all further development and commercialization of the product. Syntonix will receive an upfront license fee and will be eligible for development milestones and royalties upon commercialization. Additional financial terms were not disclosed.

**3/1/2005** (Category: Deals & Alliances)

On February 28, 2005 Rosetta Biosoftware announced that Serono licensed the Rosetta Resolver system. The Rosetta Resolver system is an enterprise-wide gene expression data analysis system designed to meet the scientific and business requirements of a global gene expression research effort. The Rosetta Resolver system is developed and supported by Rosetta Biosoftware, and is distributed exclusively by Agilent Technologies, Inc.

**2/22/2005** (Category: Deals & Alliances)

On February 21, 2005 Inpharmatica Ltd announced that Serono has licensed Admensa Interactive, a suite of predictive drug absorption, distribution, metabolism and excretion (ADME) models and compound prioritisation tools. Under the terms of this new agreement, Serono will receive a multi-site license to Admensa Interactive in addition to training and ADME consulting. The financial terms of the non-exclusive agreement are not disclosed.

**12/17/2004** (Category: Deals & Alliances)

On December 16, 2004 CancerVax Corporation and Serono announced a worldwide collaboration for the development and commercialization of Canvaxin, an investigational specific active immunotherapy product being developed for the treatment of advanced-stage melanoma, a deadly form of skin cancer. Canvaxin is currently being evaluated in two international, multi-center Phase III clinical trials for the treatment of Stage III and Stage IV melanoma. Under the Agreement, CancerVax and Serono will jointly develop Canvaxin for melanoma, as well as other indications. The companies will share equally the costs of developing Canvaxin and seeking regulatory approvals for Canvaxin.

**12/8/2004** (Category: Deals & Alliances)

On December 7, 2004 Serono and Micromet (private) have signed an exclusive collaboration and license agreement for the development and commercialization of Micromet's fully human monoclonal antibody MT201 (adecatumumab). Under the terms of the agreement, Micromet will be responsible for completing the ongoing phase II clinical trials, and Serono will take over further development and commercialization of the product. Effective immediately, Serono will be responsible for all development costs. Micromet will receive an initial license fee of US\$10 million and additional milestone payments of up to US\$138 million if the product is successfully developed and registered worldwide in three or more indications. In addition, Micromet will receive undisclosed royalties based on net sales of the product. Under certain terms and conditions, Micromet may elect to share in the development and commercialization of the product in the US and EU in exchange for a share of profits.

**11/17/2004** (Category: Deals & Alliances)

On November 16, 2004 ProMetic Life Sciences Inc. announced that its Mimetic Ligand technology has achieved the most critical milestone of the Company's collaboration with Serono S.A. the third largest biotech company in the world. ProMetic's technology achieved the purity and yield requirements of Serono and maintained its performance throughout the scale-up process. The project initiated in March 2004 was performed at a rapid pace, keeping our target to deliver a complete technology transfer package to Serono by year-end. This included the provision of quantities of GMP grade affinity adsorbent. This material can be used by Serono to manufacture larger quantities of a protein to meet the needs of its ongoing clinical trials program.

**11/16/2004** (Category: Deals & Alliances)

On November 15, 2004 Serono and protein evolution company Nautilus Biotech announced that they have signed an agreement under which Serono and Nautilus will work together to develop the next-generation of human growth hormone, with improved biological, pharmacological and clinical profiles. This improved version of human growth hormone would allow less frequent injections of this therapeutic protein which is currently administered daily. Under the terms of the agreement, Serono will receive an exclusive license to develop the next-generation human growth hormone and an exclusive option to license exclusive worldwide rights to develop, manufacture, and commercialize improved variants of the protein generated by Nautilus's rational evolution technology, a process mimicking natural evolution. In return, Nautilus will receive an initial fee and potential milestone payments related to development progress, regulatory submissions and approvals. If a new version of growth hormone is successfully developed and registered worldwide, and Serono exercises its option right, the aggregate amount of these payments could reach Euro 19 million. Nautilus will also receive undisclosed royalties on sales of the improved protein.

**10/28/2004** (Category: Deals & Alliances)

On October 27, 2004 Serono and Paratek Pharmaceuticals, Inc. announced that they have entered into an agreement to discover, develop and commercialize an orally-available disease modifying treatment for multiple sclerosis. Under the terms of the agreement, Paratek will receive an initial cash payment, a loan convertible into Paratek stock, research funding and potential milestone payments related to development progress and regulatory milestones. In addition to upfront consideration, Paratek would receive USD 38 million in milestone payments from Serono for the first product to be successfully developed and registered in MS. Additional drugs and indications developed would result in further payments to Paratek. Paratek will receive undisclosed royalties on product sales should a product reach the market.

**9/9/2004** (Category: Deals & Alliances)

On September 8, 2004 ZymoGenetics, Inc. and Serono announced their intent to enter into a broad partnership to research, develop and commercialize novel protein and antibody therapeutics based on discoveries made by ZymoGenetics. As part of this alliance: Serono will gain access to a large portfolio of ZymoGenetics' genes and proteins for in-house evaluation and screening, and rights to license such proteins over the next five years. Serono will also have rights over the next five years to license up to twelve products arising from ZymoGenetics' internal core research projects. ZymoGenetics will have an option to co-develop and co-commercialize in the U.S. any products selected by Serono. Until November 2006, Serono's rights to exclusively license proteins outside the U.S. will be subordinate to certain existing options of Novo Nordisk under a separate agreement. ZymoGenetics will license to Serono exclusive worldwide rights to develop and commercialize products based on Fibroblast Growth Factor 18 (FGF-18) and the Interleukin 22 Receptor (IL-22R). In addition, the companies will co-develop Interleukin 31 (IL-31).

**9/4/2004** (Category: Deals & Alliances)

On September 3, 2004 Serono announced that, in connection with the grant of a license under a non-core technology it is to receive a licence fee, payable in annual instalments over the next three years. The identity of the licensee was not disclosed. The license fee is non-refundable and non-cancellable, received instead of future ongoing royalties and will in accordance with International Financial Reporting Standards be recognized immediately as license income in Serono's third quarter 2004 results of operations. As a result, Serono will record exceptional royalty revenue of USD 67 million in the third quarter.

**5/5/2004** (Category: Deals & Alliances)

On May 4, 2004 4SC AG and Serono announced that they have signed an agreement under which 4SC grants Serono exclusive worldwide rights to develop and commercialize 4SC's program of dihydroorotate dehydrogenase (DHODH) inhibitors. This program comprises a series of small molecules with potential as orally active treatments in autoimmune disorders, such as rheumatoid arthritis and multiple sclerosis. The agreement covers lead compound SC12267, which is currently completing Phase I clinical trials, as well as further back-up compounds and related intellectual property. Under the terms of the agreement, 4SC will receive an upfront payment, research funding and potential milestone payments related to development progress, regulatory submissions, marketing authorizations and commercial sales achievements. If products are successfully developed, registered and commercialized 4SC could receive up to USD 67 million from Serono. 4SC will also receive undisclosed royalties on product sales.

**3/24/2004** (Category: Deals & Alliances)

On March 23, 2004 SGX (Structural GenomiX, Inc.) announced the formation of its first FAST drug discovery collaboration with Serono S.A. for the development of novel small molecule therapeutics. Under the terms of the agreement, SGX will apply its proprietary FAST (Fragments of Active Structures) technology to generate novel lead compounds for selected kinase and phosphatase targets provided by Serono. Serono will be responsible for development and commercialization of drug candidates produced from the collaboration. SGX will receive upfront and research payments together with clinical development milestones and royalties on sales. Payments to SGX, exclusive of royalties, could reach up to \$68 million following successful achievement of milestones.

**3/11/2004** (Category: Deals & Alliances)

On March 10, 2004 ProMetic Life Sciences Inc. wholly owned subsidiary ProMetic Biosciences Ltd announced that it has signed a development and collaboration agreement with Serono S.A. to provide Serono access to ProMetic's unique protein purification technology. Serono will fund the development of an affinity adsorbent to isolate and purify a protein of interest to Serono. A Mimetic Ligand will be selected from ProMetic's Intelligent Combinatorial Libraries and will be designed to enhance Serono's already rigorous therapeutic purification procedures.

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