

Patents

In order to get information on the number of patents resulting from these projects a patent landscape analysis was carried out. The database used for patent landscape analysis called PatBase (Minesoft product). PatBase Coverage includes 100+ million documents from over 100 patent-issuing authorities and includes patent applications, granted patents, utility models and designs. 443 patent families were found with search terms Rett syndrome OR mecpc2 OR methyl-CpG-binding protein. The main priority countries (where the inventions were first registered, frequently the country of work) are the US (n=364) and far lagged behind are the EU member states (n=104). The total number of inventors in the EU member states are 710, number of assignees 81. Table 5 shows the inventors (researchers in pharmaceutical companies) from EU priority country and the table 6 shows the assignees (pharmaceutical companies, few universities, public institutions). Unfortunately, we could not find significant overlap between EU based project holders and inventors/assignees. A possible explanation for this finding is that even the inventions of the identified projects are difficult to be patented (the invention is not always patentable subject matter, e.g. theory on gene mutation). Another explanation is that the patenting process is expensive, requires significant investment over many years. Most public universities, national bodies, charities, patent organizations cannot cover such a cost.

Table 5. Top 47 inventors by company names

Inventors (by Company Name) with at least 2 patent families	Families
Basting Daniel (Bayer Pharma Ag)	4
Bender Eckhard (Bayer Pharma Ag)	4
Golz Stefan (Bayer Pharma Ag)	4
Haegebarth Andrea (Bayer Pharma Ag)	4
Lienau Philip (Bayer Pharma Ag)	4
Liu Ningshu (Bayer Pharma Ag)	4
Moening Ursula (Bayer Pharma Ag)	4
Moewes Manfred (Bayer Pharma Ag)	4
Puehler Florian (Bayer Pharma Ag)	4
Richter Anja (Bayer Pharma Ag)	4
Schneider Dirk (Bayer Pharma Ag)	4
Scott William (Bayer Pharma Ag)	4
Siegel Franziska (Bayer Pharma Ag)	4
Thede Kai (Bayer Pharma Ag)	4
Zorn Ludwig (Bayer Pharma Ag)	4
Berlin Kurt (Epigenomics Ag)	3
Amaudrut Jerome (Inventiva)	2
Boubia Benaissa (Inventiva)	2
David Mark Wallace (Samumed Llc)	2
De Filippis Bianca (Ist Superiore Sanita)	2
Donello John (Allergan Inc)	2
Donello John E (Allergan Inc)	2
Geisler Jens (Bayer Pharma Ag)	2
Guillier Fabrice (Inventiva)	2

Hansen John Bondo (Contera Pharma Aps)	2
Hirawat Samit (Ptc Therapeutics Inc)	2
Hood John (Samumed Llc)	2
John Hood (Samumed Llc)	2
Kc Sunil Kumar (Samumed Llc)	2
Kumar Kc Sunil (Samumed Llc)	2
Langdon Miller (Ptc Therapeutics Inc)	2
Laviola Giovanni (Ist Superiore Sanita)	2
Massardier Christine (Inventiva)	2
Miller Langdon (Ptc Therapeutics Inc)	2
O Donnell Maura (Nestec Sa)	2
Otte Arie (Chromagenics Bv)	2
Otte Arie Pieter (Chromagenics Bv)	2
Patterson Catherine (Nestec Sa)	2
Piepenbrock Christian (Epigenomics Ag)	2
Samit Hirawat (Ptc Therapeutics Inc)	2
Schatz Philipp (Epigenomics Ag)	2
Schuster Matthias (Epigenomics Ag)	2
Sunil Kumar Kc (Samumed Llc)	2
Tallandier Mireille (Inventiva)	2
Thomsen Mikael S (Contera Pharma Aps)	2
Urnov Fyodor (Sangamo Biosciences Inc)	2
Wallace David Mark (Samumed Llc)	2

Table 6. Assignees of patent families

All Assignees	Families
Bayer Pharma Ag	4
Epigenomics Ag	4
Nestec Sa	3
Ptc Therapeutics Inc	3
Sangamo Biosciences Inc	3
Allergan Inc	2
C4X Discovery Ltd	2
Chromagenics Bv	2
Concert Pharmaceuticals Inc	2
Contera Pharma Aps	2
Inventiva	2
Ist Superiore Sanita	2
Samumed Llc	2
Aarhus Univ	1
Albany Molecular Research Inc	1
Alchemia Oncology Pty Ltd	1
Anacor Pharmaceuticals Inc	1
Assistance Publique Hopitaux De Paris Aphp	1

Balance Therapeutics Inc	1
Base4 Innovation Ltd	1
Baylor Research Inst	1
Board Of Trustees Of Leland Stanford Junior Univ	1
Braindtech S R L	1
Burnham Inst Medical Research	1
California Inst Of Technology	1
Catalano And Catalano	1
Cold Spring Harbor Lab	1
Cortex Pharmaceuticals Inc	1
Counsyl Inc	1
Curemark Llc	1
Curna Inc	1
Ecole Polytechnique Federale De Lausanne Epfl	1
Gencia Corp	1
Genecode As	1
Genentech Inc	1
Georg August Universitat Gottingen Stiftung Offentlichen Rechts	1
Glaxosmithkline China R And D Co Ltd	1
Guy John	1
Hadasit Medical Research Services And Development Ltd	1
Heidelberg Univ	1
Human Genetic Signatures Pty	1
Icrea Institutio Catalana De Recerca I Estudis Avancats	1
Ikerchem Sl	1
Imp Innovations Ltd	1
Inst Nat Sante Rech Med	1
Jordan Jc	1
Kobenhavns Uni	1
Kobenhavns Universitet	1
Laboratory Of America Holdings Corp	1
Les Laboratoires Servier	1
Levicept Ltd	1
Lunamed Ag	1
Massachusetts Inst Technology	1
Max Planck Ges Zur Forderung Der Wissneschaften Ev	1
Nuti Francesca 8 33	1
Of Bath Univ	1
Of Massachusetts Univ	1
Oryzon Genomics Sa	1
Pacific Biosciences California	1
Prexa Pharmaceuticals Inc	1
Prous Inst For Biomedical Research Sa	1

Rcp Development Inc	1
Reneuron Ltd	1
Respirex Pharmaceuticals Inc	1
Ribomed Biotechnologies Inc	1
Ruprecht Karls Univ Heidelberg	1
Sentinel Oncology Ltd	1
Sigma Aldrich Co Llc	1
Stuttgart Univ	1
Systemex Corp	1
Szilak Laboratories Bioinformatics And Molecule Design Ltd	1
Technion Research And Development Foundation Ltd	1
Teva Pharma	1
Theta Biomedical Consulting And Dev Co Inc	1
Trustees Of Univ Of Pennsylvania	1
Ucb Biopharma Sprl	1
Ucl Business Plc	1
Univ California	1
Univ Pennsylvania	1
Validy Net Inc	1
Visiopharm As	1