

PATENT PORTFOLIO UNIVERSITY OF DELHI

Patent Applications Filed during 2012-2017 (In chronological order with latest on the top)

Inventions No.	Title of Inventions	Inventors	Country	Patent Application Number	Application Date	Publication Date/ Grant Date	Publication No./ Patent No./ Remarks	Departments/ Colleges/ Centres
1	A DEVICE FOR MEASURING TRIGNOMETRIC FUNCTIONS	Pankaj Tyagi; Kamal Ranjan; Vikas Tomar; Jyoti Sharma; Raghvendra Tripathi.	India	1068/DEL/2015	(provisional) 16-04-2015 (Complete) 12-04-2016	Published on 21-10-2016	Published in J.No. 44/2016	CLUSTER INNOVATION CENTRE
2	NOVEL BROMINATED PHENOTHIAZINE SCAFFOLDS AND METHODS THEREOF	M.D. Milton; Swati Bishnoi.	India	2110/DEL/2014	(provisional) 25-07-2014 (Complete) 16-02-2015	Published on 31-08-2016	Published in J.No. 36/2016	DEPARTMENT OF CHEMISTRY
3	A HERBAL COMPOUND FROM CLYCINE MAX SEEDS FOR CONTROLLING DIABETES AND DYSLIPIDEMIA	Suman Bala Sharma; Richa Gupta; Raja Roy.	India	481/DEL/2014	2/19/2014	Published on 21-08-2015	Published in J.No. - 34/2015	UNIVERSITY COLLEGE OF MEDICAL SCIENCES (A CONSTITUENT COLLEGE OF UNIVERSITY OF DELHI)

4	A METHOD AND APPARATUS FOR IDENTIFICATION OF HETEROSIS IN INDICA RICE HYBRID <u>CO-APPLICANT:</u> MAHARASTRA HYBRID SEED COMPANY LTD. (MAHYCO) AND DEPARTMENT OF BIOTECHNOLOGY	V. Baranwal; A.K. Tyagi; S. Kapoor; P. Umate Maupriya; V. Mikkileneeni; U. Zehr; L.M.M. Reddy.	India	3458/DEL/2013	27-11-2013 (provisional) 25-11-2014 (complete)	Published on 31-08-2016	Published in J.No. 36/2016	DEPARTMENT OF PLANT MOLECULAR BIOLOGY
5	SEMANTIC INTEGRATION AND CATALOGUING OF BIOLOGICAL EXPERIMENTAL <u>CO-APPLICANT:</u> DEPARTMENT OF BIOTECHNOLOGY	Saurabh Raghuvanshi; Rashmi Jain; Priyanka Garg; Pratibha Gour; Shaji V Joseph; Akhilesh Kumar Tyagi.	India	1152/DEL/2013	17-10-2013 (Provisional) 16-10-2014 (Complete)	Published on 24-04-2015	Published in J.No. 17/2015	DEPARTMENT OF PLANT MOLECULAR BIOLOGY
6	A METHOD OF TRANSIENT EXPRESSION OF GENE OF INTEREST IN PLANTS USING A PLANT DNA VIRUS BASED VECTOR <u>CO-APPLICANT:</u> DEPARTMENT OF BIOTECHNOLOGY	Nabanta Gogoi; Indranil Dasgupta	India	2660/DEL/2013	9/9/2013	Published on 13-03-2015	Published in J. No. 11/2015	DEPARTMENT OF PLANT MOLECULAR BIOLOGY
7	METHOD FOR BIO-BLEACHING OF WOOD KRAFT PULPS <u>CO-APPLICANT:</u> CENTRAL PAPER AND PULP RESEARCH INSTITUTE	Ramesh Chander Kuhad; R. K Jain; Vadde Vasanta Thakur; Abha Sharma; Vipin Gupta; R.M Mathur.	India	2447/DEL/2013	8/19/2013	Published on 20-09-2013	Published in J.No. 38/2013	DEPARTMENT OF MICROBIOLOGY

8	A PROCESS OF PRODUCING ORF-ENRICHED PHAGE DISPLAY LIBRARY AND USES THEREOF	Amita Gupta; Vijay Kumar Chaudhary; Nimisha Shrivastava	India	2346/DEL/2013	8/6/2013	Published on 06-05-2016	Published in J. No. 19/2016	DEPARTMENT OF BIOCHEMISTRY
9	CURCUMIN ANALOGS AND METHODS OF MAKING AND USING THEREOF <u>CO-APPLICANT:</u> GEORGIA STATE UNIVERSITY RESEARCH FOUNDATION, INC., (US)	Diwan S. Rawat; Binghe Wang; Nitin Kumar; Sunny Manohar; Xiaochuan YANG; Guojing Sun; Nanting Ni.	PCT	PCT/US2013/053216	8/1/2013	Published on 06-02-2014	Publication No. WO2014022660 (A1)	DEPARTMENT OF CHEMISTRY
			USA	14/418,025	8/1/2013	Patent granted on 06-02-2018	Patent No. US9884825 (B2)	
10	A NOVEL BEACON-BASED DIAGNOSTIC PROBE/TOOL/KIT FOR DETECTION OF TRANSLOCATION 8;21 IN ACUTE MYELOID LEUKEMIA PATIENTS AND METHOD OF WORKING FOR THE SAME <u>CO-APPLICANT:</u> DEPARTMENT OF BIOTECHNOLOGY	Daman Saluja; Rashi Arora; Sunita Jetly	India	1568/DEL/2013	5/24/2013	Published on 8-11-2013	Published in J. No. 45/2013	Dr. B.R. AMBEDKAR CENTER FOR BIOMEDICAL RESEARCH (ACBR)

11	A NEW FLUORESCENT BEACON PROBE DIAGNOSTIC TOOL/KIT FOR MOLECULAR DETECTION OF TRANSLOCATION T(9;22)/BCR-ABL1 IN LEUKEMIC PATIENTS AND METHOD OF WORKING FOR THE SAME <u>CO-APPLICANT:</u> DEPARTMENT OF BIOTECHNOLOGY	Daman Saluja; Rashi Arora; Sunita Jetly	India	1569/DEL/2013	5/24/2013	Published on 8-11-2013	Published in J. No. 45/2013	Dr. B.R. Ambedkar Center for Biomedical Research (ACBR)
12	A PROCESS FOR PRODUCING AROMATIC CARBOXYLIC ACIDS BY OXIDATION OF METHYL ARENES	Basudeb Saha; Sasanka Deka; Dinesh Gupta; Kalyan Jyoti Deori.	India	1346/DEL/2013	5/7/2013	Published on 12-12-2014	Published in J. No. 50/2014	DEPARTMENT OF CHEMISTRY
13	A Molecular Beacon-Mediated Oligonucleotide-Based Diagnosticprobe/Tool/Kit For Detection Of Trichomonas Vaginalis And Method Of Working For Same	Daman Saluja.	India	1098/DEL/2013	4/12/2013	Published on 03-01-2014	Published in J. No. 01/2014	Dr. B.R. AMBEDKAR CENTER FOR BIOMEDICAL RESEARCH (ACBR)

14	<p>PRODUCTION OF RIFAMYCIN B ANALOG 24-DESMETHYLRIFAMYCIN B BY SWAPPING ACYL TRANSFERASE OF MODULE 6 (PROPIONATE SPECIFIC) DOMAIN OF RIFAMYCIN POLYKETIDE SYNTHASE (PKS) GENE CLUSTER OF AMYCOTATOPSIS MEDITERRANEI S699 WITH THAT ACYL TRANSFERASE OF MODULE 2 (ACETATE SPECIFIC) DOMAIN OF RAPAMYCIN PKS GENE CLUSTER</p> <p>CO-APPLICANT: DEPT OF BIOTECHNOLOGY and UNIVERSITY OF OREGON</p>	Lal Rup; Mahmud Taifo.	India	690/DEL/2013	3/20/2013	Published on 12-12-2014	Published in J. No. 50/2014	DEPARTMENT OF ZOOLOGY
	ANTIBACTERIAL COMPOUNDS AGAINST DRUG RESISTANT BACTERIA		PCT	PCT/IB2014/059989	3/20/2014	Published on 25-09-2014	Publication No. WO2014147578 (A2)	
			China	201480029144	3/20/2014	Published on 06-01-2016	CN105228617 (A)	

15	A COMPOSITION FOR DEVELOPING LATENT IMPRESSION MARKS AND PROCESS FOR PREPARING THE SAME	G.S. Sodhi; Gurvinder Kaur; Komal Kamra; V.N. Segal; Manmeet Kaur; Simran Kaur; Riya Pangasa; A.M.S. Rawat; Jasvinder Kaur; Abhinav; Vaishali Jain; Ruchika Tripathi; N. L. Dutta; Feroza Rehman.	India	470/DEL/2013	(provisional) 19-2-2013 (Complete) 19-02-2014	Published on 29-8- 2014	Published in J. No. 35/2014	GURU TEGH BAHADUR KHALSA COLLEGE (CHEMISTRY DEPT.)
16	NUTRITIONAL COMPOSITIONS AND METHODS FOR MANUFACTURING THE SAME	Syed Umair; Meenakshi Garg; Shivani G. Varmani; Susmita Dey Sadhu; Harsh Chauhan; Tripti Negi; Nitesh Sahu; Shivangi Jain; Annesha Dutta; Hemant Joshi; Anshuman Soni; Rishab Handa; Ankit Garg.	India	471/DEL/2013	(provisional) 19-2-2013 (Complete) 19-02-2014	Published on 29-8- 2014	Published in J. No. 35/2014	GURU TEGH BAHADUR KHALSA COLLEGE (CHEMISTRY DEPT.)

17	SOLAR WATER DISTILLER	Ram Tandon; Swati arora; samta Goyal; anuradha Marwah; Mohammad Fahim Ansari.	India	472/DEL/2013	(Provisional) 19-2-2013 (Complete) 19-02-2014	Published on 29-8- 2014	Published in J. No. 35/2014	ZAKIR HUSSAIN DELHI COLLEGE (PHYSICS DEPTT.)
18	COATING COMPOSITIONS AND METHODS FRO PREPARATION THEREOF	Anshuman Soni; Susmita Dey Sadhu; Shvani G. Varmani; Meenakshi Garg; Harsh Chauhan; Tripti Negi; Nitesh Sahu; Shivangi Jain; Annesha Dutta; Syed Umair; Hemant Joshi.	India	473/DEL/2013	(Provisional) 19-2-2013 (Complete) 18-02-2014	Published on 29-08-2014	Published in J. No. 35/2014	BHASKARACHARYA COLLEGE OF APPLIED SCIENCES (FOOD TECHNOLOGY)
19	A NOVEL OLIGONUCLEOTIDE - BASED DIAGNOSTIC PROBE/TOOL/KIT FOR TUBERCULOSIS DETECTION AND METHOD OF WORKING FOR SAME <u>CO-APPLICANT:</u> UNION OF INDIA THROUGH SECRETARY DBT	Prof. Dr. Daman Saluja; Mr. Manoj Nimesh; Ms. Deepali Joon.	India	77/DEL/2013	1/10/2013	Published on 22-08- 2014	Published in J. No. 34/2014	Dr. B.R. AMBEDKAR CENTER FOR BIOMEDICAL RESEARCH (ACBR)

20	A BIO-CONVERSION METHOD TO IMPROVE NUTRITIONAL PROPERTIES OF LIGNOCELLULOSIC RESIDUES <u>CO-APPLICANT:</u> DEPARTMENT OF BIOTECHNOLOGY & AYURVET LIMITED	Ramesh Chander Kuhad; Bhuvnesh Shrivastava; Anup Kalra.	India	4039/DEL/2012	12/28/2012	Published on 31-05-2013	Published in J. No 22/2013	DEPARTMENT OF MICROBIOLOGY
21	AMINOQUINOLINE DERIVATIVES AND USES THEREOF <u>Co-Applicant:-</u> The Mclean Hospital Corporation (US), University Of Delhi (IN)	Diwan S RAWAT, Sunny MANOHAR, Ummadisetty Chinna RAJESH, Deepak Kumar, Anuj THAKUR, Mohit TRIPATHI, Panyala Linga REDDY, Shamseer Kulangara KANDI, Satyapavan VARDHINENI, Kwang-Soo Kim, Chun-Hyung Kim.	PCT	PCT/US2013/028329	2/28/2013	Published on 31-10-2013	Publication No. WO2013134047	DEPARTMENT OF CHEMISTRY
			USA	14/382,727	9/3/2014	Patent Granted on 14-02-2017	Patent granted No. US9567316	
			Europe	13758678	10/3/2014	Published on 14-01-2015	Publicatino No. EP2822936	

22	A SYNERGISTIC HERBAL COMPOSITION FOR PREVENTION AND TREATMENT OF DIABETIC RETINOPATHY AND CATARACT <u>CO-APPLICANT:</u> PROMED RESEARCH CENTRE , Gurgaon DELHI INSTITUTE OF PHARMACEUTICAL SCIENCES & RESEARCH; UNIVERSITY OF DELHI	Deepak Bahri; Shrikant Gaur; Suresh Kumar Gupta; Srinivasan, Bhartur, Parthasarathy; Ram Kumar Gupta; Ashutosh Aggarwal; Binit Kumar; Sushma Srivastava; Rohit Saxena.	India	3134/DEL/2011	11/3/2011	Published on 03-05-2013	Published in J. No.18/2013	DELHI INSTITUTE OF PHARMACEUTICAL SCIENCES & RESEARCH (DIPSAR)
			PCT	PCT/IB2012/056105	11/2/2012	Published on 10-5-2013	Publication No. WO2013065015	
23	POLYNUCLEOTIDES ENCODING HEAT SHOCK TRANSCRIPTION FACTOR AND USES THEREOF	Khurana, Paramjit Harsh Chauhan; Jitendra Paul Khurana.	India	1700/DEL/2011	6/15/2011	Published on 21-12-2012	Published in J. No. 51/2012	DEPARTMENT OF PLANT MOLECULAR BIOLOGY

24	N-PROTECTED ISATIN COMPOUNDS <u>CO-APPLICANT:</u> COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH	Balaram Ghosh; Virinder Parmar Singh; Ashok Kumar Prasad; Gainda Lal Sharma; Sakshi Balwani; Shashwath Malhotra; Seema Singh	India	1591/DEL/2011	6/3/2011	Published on 07-12-2012	Published in J. No. 49/2012	DEPARTMENT OF CHEMISTRY
25	ABIOTIC AND HEAVY METAL STRESS-INDUCIBLE NBS-STRL PROMOTER FROM RICE <u>CO-APPLICANT:</u> DEPARTMENT OF BIOTECHNOLOGY	Akhilesh Kumar Tyagi; Sanjay Kapoor; Swatishmita Ray.	India	1403/DEL/2011	5/12/2011	Published on 16-11-2012	Published in J. No. 46/2012	DEPARTMENT OF PLANT MOLECULAR BIOLOGY
26	ABIOTIC AND HEAVY METAL STRESS-INDUCIBLE NBS-STRL PROMOTER FROM RICE <u>CO-APPLICANT :</u> DEPARTMENT OF BIOTECHNOLOGY	Akhilesh Kumar Tyagi; Sanjay Kapoor; Swatishmita Ray.	India	1404/DEL/2011	5/12/2011	Published on 16-11-2012	Published in J. No. 46/2012	DEPARTMENT OF PLANT MOLECULAR BIOLOGY
27	TISSUE SPECIFIC PROMOTER AND USES THEREOF <u>CO-APPLICANT:</u> DEPARTMENT OF BIOTECHNOLOGY, NEW DELHI	Sanjay Kapoor; Akhilesh Kumar Tyagi; Priyanka Deveshwar.	India	1146/DEL/2011	4/19/2011	Published on 02-11-2012	Published in J. No. 44/2012	DEPARTMENT OF PLANT MOLECULAR BIOLOGY

28	COUMARIN COMPOUNDS FOR THE TREATMENT OF MYCOBACTERIAL INFECTIONS <u>CO-APPLICANT:</u> V P CHEST INSTITUTE, DELHI	Virinder Singh Parmar; Ashok Kumar Prasad; Hanumantharao Guru Raj; Mridula Bose; Sunil Kumar Sharma; Rashmi Tandon; Anil Baghel; Abha Kathuria; Garima Gupta; Neha Aggarwal.	India	983/DEL/2011	4/5/2011	Published on 19-10-2012	Published in J. No. 42/2012	DEPARTMENT OF CHEMISTRY
29	SPIRO-(INDOLINE-ISOXAZOLIDINES) COMPOUNDS HAVING INHIBITORY EFFECTS ON CYTOKINE-INDUCED CELL ADHESION MOLECULE ICAM-1 EXPRESSION ONTO HUMAN ENDOTHELIAL CELLS. <u>CO-APPLICANT:</u> COUNCIL OF SCIENTIFIC AND INDUSTRIAL RES.	Balaram Ghosh; Virinder Singh Parmar; Ashok Kumar Prasad; Brajendra Kumar Singh; Sakshi Balwani; Shashwat Malhotra.	India	115/DEL/2011	1/17/2011	Published on 20-07-2012	Published in J. No. 29/2012	DEPARTMENT OF CHEMISTRY
30	OPTIMIZED PROCESS FOR PRODUCTION OF ALKALINE LIPASE ENZYME FROM PSEUDOMONAS SP. AND ITS APPLICATIONS THEREOF	R.K. Saxena; Gautam Kumar Meghwanshi.	India	89/DEL/2011	1/14/2011	Published on 30-08-2013	Published in J. No. 35/2013	DEPARTMENT OF MICROBIOLOGY

31	<p>THIONATED CINNAMATES AND PROCESS FOR PREPARATION THEREOF</p> <p><u>CO-APPLICANT:</u> COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH</p>	Balaram Ghosh; Virinder Singh Parmar; Ashok Kumar Prasad; Brajendra Kumarsingh; Sarvesh Kumar.	India	960/DEL/2010	4/21/2010	Published on 19-10-2012	Published in J. No. 42/2012	DEPARTMENT OF CHEMISTRY
32	<p>A METHOD OF VIRUS-INDUCED GENE SILENCING IN RICE USING A VECTOR DERIVED FROM A DNA VIRUS</p> <p><u>CO-APPLICANT:</u> DEPARTMENT OF BIOTECHNOLOGY, NEW DELHI</p>	Arunima Purkayastha; Indranil Dasgupta.	India	2476/DEL/2009	12/1/2009	Patent Granted on 15-12-2016	Patent No. 278167	DEPARTMENT OF PLANT MOLECULAR BIOLOGY
33	<p>WITHANIA SOMENIFERA PLANT EXTRACT AND A METHOD OF PREPRATION THEREOF</p> <p><u>CO-APPLICANT:</u> INDIAN INSTITUTE OF SCIENCE, BANGALORE & NATIONAL BRAIN RESEARCH CENTRE, MANESAR, HARYANA.</p>	V. Ravindranath; Alok Gupta; Neha Sehgal; S.C. Jain; Suman Thakur; Pankaj Khanna.	Japan	20110520655	7/29/2009	Published on 7-01-2013	Publication No. JP2013500236	DEPARTMENT OF CHEMISTRY
			USA	13/003758	6-6-2011	Patent Granted on 9-7-2013	Patent No. 8481087	
			China	CN200980123889	25-5-2011	Patent Granted on 17-10-2012	Patent No. CN102076349B	

34	METHOD OF PRODUCING ALKALOTHERMOSTABLE XYLANASE FROM BACILLUS PUMIUS STRAIN MK001 BY SOLID STATE FERMENTATION <u>CO-APPLICANT:</u> DEPARTMENT OF BIOTECHNOLOGY, NEW DELHI	Ramesh Chander Kuhad; Mukesh Kapoor.	India	984/DEL/2008	4/16/2008	Patent Granted on 11-12-2015	Patent No. 270321	DEPARTMENT OF MICROBIOLOGY
35	A PROCESS FOR EXTRACTION OF BIOACTIVE PSORALEN COMPOUND	Veena Agrawal.	India	998/DEL/2006	4/17/2006	Patent Granted on 04-01-2017	Patent No. 278934	DEPARTMENT OF BOTANY
36	PCR-BASED DETECTION METHOD FOR CHLAMYDIA TRACHOMATIS <u>CO-APPLICANT:</u> DEPARTMENT OF BIOTECHNOLOGY, N DELHI	Daman Saluja; Uma Chaudhury; Mashook Ali.	USA	13/220268	8/29/2011	Patent Granted on 22-09-2015	Patent No. US9139883B2	Dr. B.R. AMBEDKAR CENTER FOR BIOMEDICAL RESEARCH (ACBR)
37	A PROCESS FOR PRODUCING MODIFIED RECONSTITUTED SENDAI VIRAL ENVELOPE SPECIFIC FOR DRUG AND OR GENE DELIVERY TO LIVER CELLS <u>CO-ASSIGNEE:</u> NATIONAL RESEARCH DEVELOPMENT CORPORATION, N. DELHI, INDIA	Santosh K. Verma; Prashant Mani; Nishi Raj Sharma; Anuja Krishnan; Valluripally Vinod Kumar; Bathula Surendar Reddy; Arabinda Chaudhuri; Rajendra P. Roy; Debi P. Sarkar.	Europe	06728396	2/24/2006	Patent Granted on 17-10-2012	Patent No. EP1871889	DEPARTMENT OF BIOCHEMISTRY

38	IMPROVED PROCESS FOR EXPRESSION, PURIFICATION AND ENHANCED RECOVERY OF MYCOBACTERIAL RECOMBINANT PROTEINS	Vijay Kumar Chaudhary; Amita Gupta; Anil Kumar Tyagi; Abhishek Kulshrestha.	India	2077/DEL/2004	10/25/2004	Patent Granted on 19-11-2014	Patent No. IN263766	DEPARTMENT OF BIOCHEMISTRY
39	A NOVEL CYTOPLASMIC MALE STERILITY SYSTEM FOR BRASSICA SPECIES AND ITS USE FOR HYBRID SEED PRODUCTION IN INDIAN OILSEED MUSTARD BRASSICA JUNCEA. <u>CO-APPLICANT:</u> NATIONAL DAIRY DEVELOPMENT BOARD, GUJARAT	Yashpal Singh ; Akshay Kumar Pradhan; Vibha Gupta; Neelakantan Arumugam; Jagdish Kumar Verma; Arundhati Mukhopadhyay; Deepak Pentel.	Canada	2005/25278187	2/26/2007	Patent Granted on 4-8-2015	Patent No. CA2578187	DEPARTMENT OF GENETICS
40	MUTANTS OF MYCOBACTERIA AND PROCESS THEREOF <u>CO-APPLICANT:</u> INDIAN COUNCIL OF MEDICAL RESEARCH, NEW DELHI	A. K. Tyagi; Ramandeep Singh; Vivek Ramanathan Rao; Vadakkuppattu Devasenapathi Ramanathan; Chinnambedy Nainarappan Paramasivan; Paranji Ramaiyenger Narayanan; Yogendra Singh.	India	882/DEL/2003	09-7-2003	Patent Granted on 19-3-2014	Patent No. IN259594	DEPARTMENT OF BIOCHEMISTRY

41	NOVEL GENE OSISAP1 OF RICE CONFERS TOLERANCE TO STRESSES AND A METHOD THEREOF <u>CO-APPLICANT:</u> DEPARTMENT OF BIOTECHNOLOGY, NEW DELHI	Akhilesh Kumar Tyagi; Arnab Mukhopadyay; Shubha Vjj.	Japan	2004562833	12/23/2003	Patent Granted on 31-7-2013	Patent No. JP5253710	DEPARTMENT OF PLANT MOLECULAR BIOLOGY
42	REGULATION OF LETHAL GENE EXPRESSION IN PLANTS <u>CO-APPLICANT:</u> NATIONAL DAIRY DEVELOPMENT BOARD,GUJRAT,IN	Deepak Pental; Arun Jagannath; Panchali Bandyopadhyay; Neelakantan Arumugam; Vibha Gupta; Pradeep Kumar Burma.	Canada	2449250	30-05-2000	Patent Granted on 14-8-2012	Patent No. CA2449250	DEPARTMENT OF GENETICS