

NAAC

Revised Format of Self-Study Report

(As per the NAAC Manual for Universities effective from July, 2017)

Quantitative Metrics for Department

CRITERION I - CURRICULAR ASPECTS

Key Indicator - 1.1 Curriculum Design and Development

Metric No. (as per NAAC Manual)	Description (as per NAAC Manual, July 2017, for Reference purposes)	Data Requirement from Department (For Academic years 2012-13 to 2016-17)	Academic Years 2012-13 to 2016-17				
			2012-13	2013-14	2014-15	2015-16	2016-17
1.1.2	<p style="text-align: center;">Percentage of programmes where syllabus revision has taken place in last 5 years.</p> <p style="text-align: center;">Revised programme /Total Programme * 100</p> <p style="text-align: center;">67%</p>	No. of courses/ programmes revised in last 5 years	-	-	-	1	1
		Course Code	M.Sc. Biochemistry and Ph.D. Biochemistry				
		Course Title/ Programme Title	M.Sc. Biochemistry Ph.D. Biochemistry				
		Total number of courses/programmes offered in Department	3				
1.1.3	<p style="text-align: center;">Courses having focus on employability/ entrepreneurship/ skill development.</p> <p style="text-align: center;">Name of the course/ programme with major activities</p> <p style="text-align: center;">None</p>		2012-13	2013-14	2014-15	2015-16	2016-17
		Name of the course/programme	-	-	-	-	-
		<p>Supporting Document required:</p> <p>In case any such course is introduced in Dept. / Centre, please provide :</p> <p>i) Programme/curricula/syllabus</p> <p>ii) Minutes of the Committee of Courses</p> <p>iii) Faculty minutes</p> <p>iv) AC approval</p>					

Key Indicator - 1.2 Academic Flexibility

1.2.1	New courses introduced during last five years	Number of new courses	None
		Total number of courses offered	3

Supporting Document required:

Name of new courses

Name of programmes

Key Indicator- 1.3 Curriculum Enrichment

1.3.2	Number of value added courses imparting transferrable life skills in last 5 years	No. of courses in last 5 years with 30 or more contact hours	-					
		Course Code and Title	-					
		None		2012-13	2013-14	2014-15	2015-16	2016-17
			No. of times offered during the same year	-	-	-	-	-
			Total no. of students Completing the course in the year	-	-	-	-	-
1.3.4	Number of students undertaking field projects/internships	No. of students undertaking field programmes/ internship	2012-13	2013-14	2014-15	2015-16	2016-17	
			3	-	1	1	-	
		Names of the programme						
<p>Indian Academy of Sciences Summer Fellowship for short term research (2 months)</p> <p>Khorana Summer Program for Scholars, Indo-US Science and Technology Forum, for short term research in USA (2 months)</p> <p>Boehringer Ingelheim Fonds (BIF) Travel Grant Award for Short Term Research Work in Europe (2-3 months).</p>								

Key Indicator 1.4 Feedback system

1.4.1	Structured feedback from 1) student, 2) Teachers, 3) Employers, 4) Alumni, 5) Parents A. any 4 of the above B. any 3 of the above C. any 2 of the above D. any 1 of the above E. None of the above	<p>Choose any one of the given options and respond accordingly with result. In case of choosing any option between A and D, give supporting documentary evidence i.e. filled feedback form from any of the stake holders as an example</p> <p>D.</p> <p>Feedback is taken from students in the final year. Attempt is made to imbibe as much from the feedback as rationally possible.</p>
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Criterion II - Teaching - Learning and Evaluation

Key Indicator - 2.1 Student Enrolment and Profile

Metric No. (as per NAAC Manual)	Description (as per NAAC Manual, July 2017, for Reference purposes)	Data Requirement from Department (For Academic years 2012-13 to 2016-17)	2012-13	2013-14	2014-15	2015-16	2016-17
2.1.1	Average percentage of students from other States and Countries during the last five years	Number of students enrolled from other states and countries. (data to be given on the basis of permanent address mentioned by the student in the admission form).(M.Sc. + M.Phil. + Ph.D.)	9	12	8	6	5
		Total number of students enrolled in Dept./Centre	29	35	24	23	22
		Number of seats available in all	31	35	25	24	22

2.1.2	Demand Ratio (Average of last five years)	the programs (M.Sc. + M.Phil. + Ph.D.)						
		Total number of eligible applications received	226	415	309	454	1018	
2.1.3	Average percentage of seats filled against seats reserved for various categories as per applicable reservation policy during the last five years	Number of students admitted from the reserved category (data to be given only for SC,ST,OBC students) (M.Sc. only)	4	6	5	6	6	
		Total number of seats earmarked for reserved category (seats for SC,ST,OBC) as per GOI or State Government rule(M.Sc. only)	6	6	6	6	6	
Key Indicator - 2.2 Catering to Student Diversity								
Metric No. (as per NAAC Manual)	Description (as per NAAC Manual, July 2017, for Reference purposes)	Data Requirement from Department (For Academic years 2012-13 to 2016-17)	2012-13	2013-14	2014-15	2015-16	2016-17	
2.2.2	Student -Teacher ratio (Data Requirement for last five years (year wise))	Total number of students enrolled in the institution (Year wise)(M.Sc. + M.Phil. + Ph.D.)	29	35	24	23	22	
		Total number of Permanent teachers in the institution (Year wise)	7	7	9	8	7	
		Total number of Adhoc teachers in the institution (Year wise)	0	0	0	0	0	

		Total number of differently-abled students on roll in the Dept/ Centre	0	1	0	0	0
		Total number of students on roll in the Dept/ Centre	29	35	24	23	22
Key Indicator- 2.3 Teaching- Learning Process							
2.3.2	Average percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc.	Number of teachers using ICT (LMS, e-resources) In Dept./ Centre	7	7	9	8	7
		Number of teachers on roll	7	7	9	8	7
		ICT tools and resources available (Yes/No)	Yes				
2.3.3	Ratio of mentor to students for academic and stress related issues	Number of students assigned to mentor for academic and stress related issues	29	35	24	23	22
		Number of mentors assigned to address the issues	7	7	9	8	7
		Ratio (Mentor:Mentee)	1:4	1:5	1:3	1:3	1:3
Key Indicator-2.4 Teacher Profile and Quality							
2.4.1	Average percentage of teachers against sanctioned posts during the last five years	Number of teachers (Data Requirement for last five years for permanent teachers)	7	7	9	8	7
		Number of sanctioned posts (to be verified by Establishment / Teaching)	9	9	9	9	9

2.4.2	Average percentage of permanent teachers with Ph.D. during the last five years	Number of permanent teachers with PhD	7	7	9	8	7
		Total number of permanent teachers	7	7	9	8	7
2.4.3	Average teaching experience of permanent teachers in number of years	Average teaching experience of all permanent teachers (give supporting document of names of only permanent teachers)	14	15	12	15	18
2.4.4	Average percentage of Permanent teachers who received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the last five years (Data Requirement for last five years)	Number of Permanent teachers in Dept/Centre receiving awards from State, National, International level	2	2	2	4	1
		Total number of permanent teachers in Dept./ Centre	7	7	9	8	7
2.4.5	Average percentage of permanent teachers from other States against sanctioned posts during the last five years (Data Requirement for last five years)	Number of permanent teachers from other states	6	6	6	5	4
		Total number of sanctioned posts (to be verified by Establishment / Teaching)	9	9	9	9	9

Key Indicator- 2.6 Student Performance and Learning Outcomes								
2.6.3	Average pass percentage of students (Data Requirement for last five years)	Program Code						
		Name of the program		M.Sc.	M.Sc.	M.Sc.	M.Sc.	M.Sc.
		Number of students appeared		10	12	11	12	12
		Number of students passed		10	12	11	12	12
Key Indicator- 2.7 Student Satisfaction Survey								
2.7.1	Online student satisfaction survey regarding teaching learning process	Data Requirement: Name/ Class/ Gender Student Id number/ Aadhaar Id number Mobile number Email id NONE		Supporting Document required: Degree programme Database of all currently enrolled students need to be prepared				
Criterion III: Research, Innovations and Extension								
Key Indicator 3.1 Promotion of Research and Facilities								
Metric No. (as per NAAC Manual)	Description (as per NAAC Manual, July 2017, for Reference purposes)	Data Requirement from Department (For Academic years 2012-13 to 2016-17)	Academic Years 2012-13 to 2016-17					
			2012-13	2013-14	2014-15	2015-16	2016-17	
3.1.3	Teachers awarded international fellowship for advanced studies/ research during the last five years	Number of teachers awarded international fellowship from 2012-13 to 2016-17.	1	1	1	1	1	
		Name of the teacher	Name of the award		Year of Award		Awarding Agency	
		Dr. Suneel Kateriya	MPG-India Visiting		2012-2016		Indo German Science and	

			Fellowship, Max-Planck Institute for Bioinorganic Chemistry, Muelheim, Germany		Technology Centre and Department of Science and Technology, India
		Dr. Suneel Kateriya	MPG-India Visiting Fellowship (Max Planck Group)	2015-18	Indo German Science and Technology Centre and Department of Science and Technology, India
Supporting Documents required: Please provide award letters of the teachers.					
3.1.4	JRFs, SRFs, Post-Doctoral Fellows, Research Associates and other research fellows in the university enrolled during the last five years	Number of JRFs, SRFs, Post-Doctoral Fellows, Research Associates and other research fellows in the Dept./Centre from 2012-13 to 2016-17.			
		Name of Research fellow	Year of enrolment	Duration of fellowship	Type of the fellowship
		Garima Khare	2012	2 years (2012-14)	Research Scientist
		Swati Singh	2013	5 year (2013-2018)	JRF/SRF national
		Shubhita Mathur	2013	5 year (2013-2018)	JRF/SRF national
		Vaishali Verma	2013	5 year (2012-2017)	JRF/SRF national
					Granting agency
					DBT
					ICMR
					DBT
					CSIR

	Mohsin Raza	2013	5 year (2012-2017)	JRF national	UGC
	Pushpanjali Dasauni	2013	1 year (2013-2014) 3 year (2014-2017)	JRF University SRF national	Non-NET ICMR
	Shivani Sharma	2014	3 years (2014-2017)	SRF national	CSIR
	Pradeep Singh Cheema	2014	5 year (2014-2019)	JRF national	CSIR
	Yama Atri	2014	5 years (2014-2019)	JRF national	UGC
	Gaurav Kumar	2015	5 year (2015-2020)	JRF national	CSIR
	Manisha Saini	2015	3 year (2017-2020)	JRF	DBT
	Mohd Asim Khan	2015	5 year (2016-2021)	JRF University	Non-NET UGC
	Sanjeev Kumar Yadav	2015	5 year (2015-2020)	JRF national	ICMR
	Deeptashree Nandi	2015	3 year (2017-2020)	JRF national	CSIR
	Hina Bharti	2015	5 year (2015-2020)	JRF national	CSIR
	Kalpana Sagar	2015	2 years (2015-2017)	RA	CSIR
	Simran Kaur	2016	5 year (2016-2021)	JRF national	CSIR
	Aakriti Singal	2016	5 year (2017-2022)	JRF University	Non-NET UGC
	Dr. Pankaj Prabhakar	2016	2 Year (2016-2018)	National Postdoct oral Fellow	DST-SERB
	Neha Lalwani	2017	5 year (2017-2022)	JRF national	UGC
	Nikita Goswami	2017	5 year (2017-2022)	JRF University	Non-NET UGC
	Rita Singh	2017	5 year (2017-2022)	JRF University	Non-NET UGC

		Chetna Dhembla	2017	5 years (2017-2022)	JRF Non- Govt.	Lady Tata Memorial Trust, Mumbai
		Aakanksha Kadam	2017	5 year (2017-2022)	JRF University	Non-NET UGC
		Nikhil Bhalla	2017	5 year (2017-2022)	JRF University	Non-NET UGC
		Neha Panwar	2017	5 year (2017-2022)	JRF University	Non-NET UGC
		Rajeshwar Patle	2017	5 year (2017-2022)	JRF University	Non-NET UGC
		Dr. Prachi Nangpal	2017	6 months (Feb to Sep 2017)	RS From PI project	DBT/DST
		Nupur	2017	5 year (2017-2022)	JRF University	Non-NET UGC
3.1.5	Does the Department/ Centre have these facilities? If, so choose the options and provide relevant documents as mentioned.	<ol style="list-style-type: none"> 1. Central Instrumentation Centre 2. Animal House/Green House / Museum 3. Central Fabrication facility 4. Media laboratory/Business Lab/Studios 5. Research/Statistical Databases <p>Options:</p> <ol style="list-style-type: none"> A. Any four facilities exist B. Three of the facilities exist C. Two of the facilities exist D. One of the facilities exists E. None of the facilities exist <p>Opt any One</p> <p>Supporting Document required: Name of the facility - Animal House Year of establishment – 1988 (<i>evidence cannot be located</i>) Videos/pictures - Pictures attached</p>	<p>D. (Animal House)</p>			

3.1.6	Whether the Department is under UGC - SAP, CAS, DST -FIST, DBT, ICSSR and other similar recognitions by government agency (Yes/No)? Yes.	Name of the Scheme	Name of the funding agency	Year of Award	Funds provided	Duration of award		
		Special Assistance Program (SAP-I)	UGC	04.06.2009 (Phase 1)	₹ 47,64,936/-	04.06.2009 to 03.06.2014		
	If Yes, Supporting Documents required: Please provide departmental recognition award letters	Special Assistance Program (SAP-II)	UGC	23.03.2016 (Phase II)	₹ 1,02,00,000 (sanctioned) ₹ 17,00,000 (released)	01.04.2016 to 31.03.2021		
Key Indicator 3.2 Resource Mobilization for Research								
3.2.1	Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution during the last five years (Amount in Rupees)	Name of the Project/ Endowments, Chairs	Name of the Principal Investigator	Department of Principal Investigator	Year of Award	Funds provided	Duration of the project	Name of the Project/ Endowments, Chairs
		None						
Supporting Documents required : Please provide grant award letters for research projects sponsored by non-government agency								

	(Data strictly for the period 2012-13 to 2016-17).								
3.2.2	Grants for research projects sponsored by the government sources during the last five years (for the period 2012-13 to 2016-17 ; Amount in Rupees)	Name of the Project	Name of the Principal Investigator	Department of Principal Investigator	Year of Award	Funds provided	Durati on of the project	Funding Agency	Total amount of funds received
	Total amount of funds sanctioned : Rs.8,65,61,206	Evaluation of Soya Phosphatidylcholine-stearylamine liposome as antimalarial agent.	Prof. P.C. Ghosh	Biochemistry	2013	28,61,954	03.04.2014 to 02.04.2017	ICMR	28,61,954
		Engineering of photoactivated adenylate cyclase (PAC) for the development of optogenetic Tools for neuroscience applications	Dr. Suneel Kateriya	Biochemistry	2013	45,41,916	04.03.2013 to 03.03.2016	DBT	18,44,796
		Development of reagents for simple immunochemical tests for detection of Chikungunya infection.	Prof. V.K. Chaudhary	Biochemistry	2014	86,43,384	20.03.2014 to 19.03.2019	DBT	84,11,608
		Identification and Characterization of Promoters of Toxin Antitoxin Loci in <i>Mycobacterium tuberculosis</i> .	Dr. Amita Gupta	Biochemistry	2014	25,63,117	01.04.2014 to 30.09.2017	CSIR	25,63,117
		Functional characterization of new photoreceptor proteins and ion channels in the microalga <i>chlamydomonas</i>	Dr. Suneel Kateriya	Biochemistry	2014	26,16,400	07.05.2014 to 06.05.2017	DST	13,08,200

		<i>reinhardtii</i> using functional genomics methods							
		DNA Sequencing Facility at UDSC	Prof. V.K. Chaudhary	Biochemistry	2014	1,73,59,735	13.06.2014 to 30.11.2017	DBT	1,49,26,836
		Understanding the VirS mediated acid induced responses of mycobacterium tuberculosis in maintaining the pH homeostatis in vitro and in host.	Dr. Garima Khare	Biochemistry	2014	43,21,000	31.07.2014 to 30.07.2017	DBT	31,08,032
		Innovative modalities for addressing Human health, lifestyle and infectious diseases.	Head, Biochemistry	Biochemistry	2014	1,50,00,000	03.11.2014 to 02.11.2019	DU/DST Purse (Phase-II) through Delhi University	65,59,000
		Understanding the structure of <i>Leishmania major</i> PPTase and its interaction with its cognate ACP.	Prof. Suman Kundu	Biochemistry	2015	7,90,200	27.03.2015 to 26.03.2018	UGC-DAE-CSR	7,02,335
		Development of Potent Small Molecule inhibitors against Dopamine Beta-Hydroxylase to combat Cardiovascular Diseases	Prof. Suman Kundu	Biochemistry	2015	51,65,500	15.06.2015 to 14.06.2018	DBT	50,72,232
		Centre of excellence in genome Sciences and Predictive Medicine Phase-II	Prof. Suman Kundu	Biochemistry	2015	60,62,000	21.12.2015 to 20.12.2020	DBT	35,13,700
		Development and screening of indigenous and plant based small	Dr. Pankaj Prabhakar Postdoctoral Fellow (SERB)	Biochemistry	2016	19,20,000	10.05.2016 to 09.05.2018	DST-SERB	18,69,823

		molecule inhibitors <i>in vitro</i> and <i>in vivo</i> against dopamine beta-hydroxylase	N-PDF) (Mentor: Prof. Suman Kundu)						
		Novel nanocluster based targeted anticancer theranostics	Prof. D.P. Sarkar	Biochemistry	2016	36,00,000	07.06.2016 to 06.06.2019	DBT	23,85,000
		Understanding the role of Rv1955-Rv1956 Toxin-antitoxin (TA) locus of <i>Mycobacterium tuberculosis</i> in pathogen biology.	Dr. Amita Gupta	Biochemistry	2016	52,80,000	21.07.2016 to 20.07.2019	DBT	17,60,000
		Screening lead molecules identified by structure-based rational drug design methods against cytochrome b5 reductase 3 and dopamine beta hydroxylase in spontaneously hypertensive rat models for antihypertensive effects.	Prof. Suman Kundu	Biochemistry	2017	25,60,400	22.06.2017 to 21.06.2021	DBT	11,86,800
		Unraveling the role of HPV16E7 oncoprotein in manipulating FoxM1 activity via APC/C-Cdh 1axis	Prof. Alo Nag	Biochemistry	2017	32,75,600	08.09.2017 to 07.09.2020	CSIR	8,08,333
						8,65,61,206			5,88,81,766
		Supporting Documents Required: Please provide grant award letters for research projects sponsored by Government funding agencies.							
3.2.3	Average number of research projects per	Total Number of research projects during last five years (Add all the	16						

	teacher funded by government and non-government agencies during the last five years	projects amended by both government and non-government agency in respect of all faculty members)			
		Total Number of teachers	Nine		
		Supporting Documents Required: Please provide grant award letters for research projects sponsored by Government and Non-Government Agencies.			
	Key Indicator 3.3 Innovation Ecosystem				
3.3.3	Number of Awards for innovation won by teachers/research scholars/students during the last five years	Name of the Awardee	Name of the Awarding Agency with contact details	Year of Award	
		Dr. Amita Gupta (Visitor's award for innovation by the President of India)	President of India	2015	
		Dr. Garima Khare (Innovative Young Biotechnologist Award)	Department of Biotechnology, Government of India	2013	
		Supporting Documents Required: Please provide award letters			
3.3.4	Number of Start-ups incubated on campus during the last five years	Name of the start ups	Nature of start up	Year of commencement	Contact information of the promoters
		None			
		Supporting Documents Required: Please provide sanction letter from the University for the start-ups on campus.			
	Key Indicator 3.4 Research Publications and Awards				

3.4.2	Has any faculty from the Dept./Centre received incentive from the University for getting state, national and international recognition/awards (Eg. R. & D. grants; Travel Grants; Grants for Publications; Conference Registration for Paper presentation; Collaborations, etc.)	(Yes /No) Yes			
		Name of the Awardee with contact details	Name of the Awarding Agency	Year of Award	Incentive details
		Prof. Suman Kundu	Delhi University	2012	Travel grant for attending XVII International Conference on Oxygen Binding and Sensing Proteins, 29 Aug to 1 Sept 2012
		Prof. Suman Kundu	Delhi University	2012-13	R&D grant 2,50,000
		Prof. Anil K. Tyagi	Delhi University	2012-13	R&D grant 2,50,000
		Prof. D.P. Sarkar	Delhi University	2012-13	R&D grant 2,50,000
		Prof. P.C. Ghosh	Delhi University	2012-13	R&D grant 2,50,000
		Prof. Alo Nag	Delhi University	2012-13	R&D grant 2,50,000
		Dr. Suneel Kateriya	Delhi University	2012-13	R&D grant 2,50,000
		Prof. Anil K. Tyagi	Delhi University	2013	Grant for publication (GBP 2190)
		Prof. Suman Kundu	Delhi University	2013-14	R&D grant 2,80,000
		Prof. Anil K. Tyagi	Delhi University	2013-14	R&D grant 2,80,000
		Prof. V.K. Chaudhary	Delhi University	2013-14	R&D grant 2,80,000
		Prof. D.P. Sarkar	Delhi University	2013-14	R&D grant 2,80,000
		Prof. P.C. Ghosh	Delhi University	2013-14	R&D grant 2,80,000
		Prof. Alo Nag	Delhi University	2013-14	R&D grant 2,80,000
		Dr. Suneel Kateriya	Delhi University	2013-14	R&D grant 2,80,000
		Prof. Suman Kundu	Delhi University	2014-15	R&D grant 2,85,000
Prof. V.K. Chaudhary	Delhi University	2014-15	R&D grant 3,00,000		
Prof. D.P. Sarkar	Delhi University	2014-15	R&D grant 3,00,000		

		Prof. P.C. Ghosh	Delhi University	2014-15	R&D grant 2,70,000
		Prof. Alo Nag	Delhi University	2014-15	R&D grant 2,70,000
		Dr. Amita Gupta	Delhi University	2014-15	R&D grant 3,00,000
		Dr. Suneel Kateriya	Delhi University	2014-15	R&D grant 2,80,000
		Department of Biochemistry (All Faculties)	Delhi University, DST	2014-18	Purse grant Rs.1.5 crore
		Prof. Suman Kundu	Delhi University	2015	Grant for publication (Rs.30,000)
		Prof. Suman Kundu	Delhi University	2015-16	R&D grant 3,00,000
		Prof. V.K. Chaudhary	Delhi University	2015-16	R&D grant 3,00,000
		Prof. D.P. Sarkar	Delhi University	2015-16	R&D grant 3,00,000
		Prof. P.C. Ghosh	Delhi University	2015-16	R&D grant 3,00,000
		Prof. Alo Nag	Delhi University	2015-16	R&D grant 3,00,000
		Dr. Amita Gupta	Delhi University	2015-16	R&D grant 3,00,000
		Dr. Garima Khare	Delhi University	2015-16	R&D grant 3,00,000
		Prof. Alo Nag	Delhi University	2016	Travel grant for attending international conference "43 rd ISOBM Annual Congress" held, 1 st to 6 th September 2016 at Chicago, USA
		Prof. Prahlad C. Ghosh	Delhi University	2017	Travel grant to visit Basel, Switzerland
		Supporting Documents required: Please provide letters of awards.			
3.4.3	Patents published/awarded during the last five years (2012-13 to 2016-17)	Name of the Patent published/awarded	Patent Number	Year of Award	
		Mutants of mycobacteria and process thereof (Prof. Anil K. Tyagi)	259594	2014	
		Improved process for expression, purification and enhanced recovery of <i>Mycobacterial</i> recombinant proteins (Prof. Vijay K. Chaudhary and Dr. Amita Gupta)	263766	2014	

		Novel therapeutic agents useful for human papilloma virus induced cervical cancer therapy (provisional patent filed by Prof. Alo Nag and Prof. Suman Kundu)	Application No. 201611003939	Filed in 2016		
		Antimalarial liposomal formulation (provisional patent filed by Prof. Prahlad C. Ghosh and Prof. Alo Nag)	Application No. 2017111016131	Filed in 2017		
		Supporting Documents required: Please provide the letters of award				
3.4.4	Number of Ph.Ds awarded per teacher during the last five years	Name of the PhD scholar	Name of the Department	Name of the guide/s	Year of registration of the scholar	Year of award of PhD
		Garima Khare	Biochemistry	Prof. Anil K. Tyagi	2006	2012
		Nikhil Tyagi	Biochemistry	Prof. Prahlad C. Ghosh	2006	2012
		Ranu Surolia	Biochemistry	Prof. Prahlad C. Ghosh	2007	2012
		Ajay Singh	Biochemistry	Prof. Vijay K. Chaudhary	2006	2012
		Enna Dogra Gupta	Biochemistry	Prof. Prahlad C. Ghosh	2008	2013
		P. Vineel Reddy	Biochemistry	Prof. Anil K. Tyagi	2006	2013
		Deepak Kumar Jangir	Biochemistry	Prof. Suman Kundu	2008	2013
		Nimisha Shrivastava	Biochemistry	Prof. Vijay K. Chaudhary	2006	2013

	Rupangi Verma	Biochemistry	Prof. Anil K. Tyagi	2008	2014
	Amit Kumar	Biochemistry	Prof. Suman Kundu	2008	2014
	Priyanka Chauhan	Biochemistry	Prof. Anil K. Tyagi	2008	2015
	Rince John	Biochemistry	Prof. Alo Nag	2009	2015
	Vaibhav Chand	Biochemistry	Prof. Alo Nag	2009	2015
	Nirmalya Ganguly	Biochemistry	Prof. Debi P. Sarkar	2010	2015
	Md Muntaz Khan	Biochemistry	Prof. Debi P. Sarkar	2010	2015
	Sheetal Uppal	Biochemistry	Prof. Suman Kundu	2008	2015
	Manish Shandilya	Biochemistry	Prof. Suman Kundu	2009	2015
	Manendra Pachauri	Biochemistry	Prof. Prahlad C. Ghosh	2009	2015
	Mayanka Awasthi	Biochemistry	Dr. Suneel Kateriya	2009	2015
	Peeyush Ranjan	Biochemistry	Dr. Suneel Kateriya	2008	2015
	Neha Jaiswal	Biochemistry	Prof. Alo Nag	2010	2016
	Pallavi Singhal	Biochemistry	Prof. Alo Nag	2010	2016
	Shingar Sharma	Biochemistry	Prof. Anil K. Tyagi	2011	2016
	Prachi Nangpal	Biochemistry	Prof. Anil K. Tyagi	2010	2016
	Ritika Kar	Biochemistry	Prof. Anil K. Tyagi	2010	2016
	Charanpreet Kaur	Biochemistry	Prof. Vijay K. Chaudhary	2009	2016

		Payal Grover	Biochemistry	Prof. Vijay K. Chaudhary	2008	2016
		Pooja Tiwari	Biochemistry	Prof. Prahlad C. Ghosh	2010	2016
		Meenakshi	Biochemistry	Dr. Suneel Kateriya	2011	2016
3.4.5	Details of research papers per teacher in the Journals notified on UGC website during the last five years	Data to be provided in API format with ISBN/ISSN Annexure - Publications				
3.4.6	Details of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings per teacher during the last five years	Data to be provided in API format with ISBN/ISSN 2016 1. Khare, G., Chauhan, P., Nangpal, P., Kar, R., & Tyagi, A.K. (2016). Tuberculosis: current situation, challenges and intervention strategies. In A. Datta and V. P. Sharma (Eds.), <i>Recent advances in communicable and non-communicable diseases</i> , Capital Publishing Group (pp 77-109), New Delhi, India. ISBN: 978-93-81891-31-5 2014 2. Dubey, V. K., & Kundu, S. (2014). Processing of recombinant proteins. In H.K. Das (Ed.), <i>Gene and its Engineering</i> (pp. 474-479). New Delhi: Wiley India Pvt. Ltd. ISBN: 978-81-26549-28-3. 3. Choudhury, P., Veetil, S.K., & Kateriya S. (2014). UV-B photoreceptors, their role in photosignalling, physiological responses and abiotic stress in plants. In G.K. Pandey (Ed.) <i>Elucidation of abiotic stress signaling in plants: Functional genomics perspective</i> . New York: Springer Business Media. ISBN: 978-1-4939-2211-6.				

3.4.7	Bibliometrics of the publications during the last five years based on average citation index in Google Scholar/Scopus/ Web of Science or PubMed/ Indian Citation Index/Indexed Journals	Total number of journal citations received by publications in Google Scholar , SCOPUS, Web of Science, Indian Citation Index, indexed journals during last five years (Google Scholar used)					1209
		(AKT – 289, PCG – 152, VKC & AG - 187, DPS – 33, SK – 211, AN – 102, GK – 45, SKat – 190)					
		Total number of publications in Google Scholar , SCOPUS, Web of Science, Indian Citation Index, indexed journals during last five years (from 2012-13 to 2012-17)					102
		(AKT & GK- 20, VKC & AG – 11, PCG – 13, DPS – 9, SK- 23, AN – 14, SKat – 12)					
3.4.8	Bibliometrics of the publications during the last five years based on Scopus/ Web of Science – h-index of the university	<p style="text-align: center;">Total Number of overall citations</p> <p>Overall h-index 191</p> <p>Overall h-index (AKT - 36, VKC - 38, PCG – 19, DPS – 23, SK – 24, AN – 17, AG – 11, GK - 10, SKat – 13);</p> <p>Five years 2012-2017 h-index (AKT - 23, PCG – 12, VKC – 16, DPS – 13, SK – 17, AN – 12, AG- 8, GK – 10, SKat – 13)</p>				H- index of the Department (2012-2017) 124	
Key Indicator 3.5 Consultancy							
3.5.2	Revenue generated from consultancy during the last five years	Names of the consultants	Name of consultancy project	Consulting/Sponsoring agency with contact details	Revenue generated (amount in rupees)	Total revenue generated in rupees	

		Prof. Vijay K. Chaudhary	Corporate	M/s Yashraj Biotechnology Ltd., Mumbai (YBL)	Rs.10 lac/year	Rs.10 lac/year	
3.5.3	Revenue generated from corporate training by the institution during the last five years Documents: NONE	Names of the teacher-consultants	Title of the corporate training program	Agency seeking training with contact details	Revenue generated (amount in rupees)	Number of trainees	Total revenue generated in rupees
		Supporting Documents Required: Please provide one audited statement of account indicating the revenue generated through consultancy.					
Key Indicator 3.6 Extension Activities							
3.6.2	Number of awards and recognition received for extension activities from Government / recognised bodies during the last five years	Name of the activity	Name of the Award/ recognition	Name of the Awarding government/ recognized bodies	Year of the Award		
		None					
3.6.3	Number of extension and outreach programs conducted in collaboration with industry, community and Non- Government	Name of the extension and outreach programs		Number of extension and outreach programs		Name of the collaborating agency: Non- government,	

	Organizations through NSS/NCC/Red cross/YRC etc., during the last five years					industry, community with contact details	
		None					
3.6.4	Average percentage of students participating in extension activities with Government Organizations, Non-Government Organizations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the last five years	Name of the activity	Name of the scheme	Year of the activity	Number of teachers participating in such activities	Number of students participating in such activities	
		None					
Key Indicator 3.7 Collaboration							
3.7.1	Number of Collaborative activities for research, faculty exchange, student exchange per year	Title of the collaborative activity	Name of the collaborating agency with contact details	Source of financial support	Year of collaboration	Duration	Nature of the activity
		A virtual centre of excellence for coordinated research on tuberculosis:	Prof. Kanury Rao, ICGEB, New	DBT	2011-2017	5 year + 1 year additional extension	Research (Tuberculosis)

		Development of alternative strategies (Phase II)	Delhi				
		Development of potent small molecule inhibitors against dopamine beta-hydroxylase to combat cardiovascular diseases	Prof. N.G. Ramesh. IIT, New Delhi	DBT	2015-18	3 years	Research (Drug Discovery)
		Deciphering the tumor suppressor function of miR-137 in glioblastoma tumors by proteomics	Dr. Ravindra Varma Polisetty, Sri Venkates war College, Dhaula Kuan, New Delhi-110021	DST	2016	2016-2019	Cancer research
		Screening lead molecules identified by structure-based rational drug design methods	Prof. C.C. Kartha, Rajiv Gandhi Centre	DBT	2017-2020	3 years	Research (Drug Discovery)

		against cytochrome b5 reductase 3 and dopamine beta hydroxylase in spontaneously hypertensive rat models for anti-hypertensive effects	for Biotechnology, Trivandrum, Kerala				
3.7.2	Number of linkages with institutions/industries for internship, on-the job training, project work, sharing of research facilities etc. during the last five years NONE	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Year of commencement	Duration(From-to)	Nature of linkage	
		Supporting Documents Required: Please provide documents for linkages with institutions/ industries					
3.7.3	Number of functional MoUs with institutions of national, international importance, other universities, industries, corporate houses etc. during the last five years (only functional MoUs with ongoing activities to be considered) NONE	Organization with which MoU is signed	Name of the institution/ industry/ corporate house	Year of signing MoU	Duration	List the actual activities under each MoU	Number of students/ teachers participated under MoUs

		Supporting Documents Required: Please provide documents for linkages with institutions/ industries
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Criterion IV – Infrastructure and Learning Resources

Key Indicator 4.1 Physical facilities

Metric No. (as per NAAC Manual)	Description (as per NAAC Manual, July 2017, for Reference purposes)	Data Requirement from Department (For Academic years 2012-13 to 2016-17)	Academic Years 2012-13 to 2016-17				
			2012-13	2013-14	2014-15	2015-16	2016-17
4.1.1	Facilities for teaching - learning available in Dept./centre as per minimum requirements of statutory bodies	Facilities	Available in Department/ Centre				
		Classroom (only number and size in mtr. / square)	2 : Size - 19.50 m ² & 47.74 m ²				
		Laboratories (only number and size in mtr. / square)	2 (Masters') : Size - 30.34 m ² & 57.27 m ²				
		Computing instruments (only number)	5 (in M.Sc. labs)				
4.1.3	% of classrooms and seminar halls with ICT-enabled facilities such as smart class, LMS, etc.	Facilities	Number of Classrooms /Seminar Hall/ Smart class room				
		Classrooms with LCD	2				
		Classrooms with Wi-fi/LAN	2				
		Seminar halls with ICT facilities	1				
		Total No. Of classroom and seminar Hall in the department	3				

Key Indicator – 4.2 Library as a Learning Resource

4.2.7	E-content developed by teachers 1. e-pathshala 2. For CEC	Name of the teacher	Name of the module	Platform on which module is developed	Date of launching e-content	Number of platforms on which e-content has been developed by teachers
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	<p>(undergraduate) 3. For SWYAM 4. For other MOOCS platform For NPTEL/ NMEICT/ other Government facilities 5. For institutional LMS</p> <p>Options: 1. any 5 of above 2. any 4 of above 3. any 3 of above 4. any 2 of above 5 None of the above</p> <p>Opt Any One</p>					
		None				
Key Indicator 4.3 IT infrastructure						
4.3.2	Student- Computer ratio in Dept./Centre	No. of working computers	Total no. of students			
		30	60			
4.3.4	Facilities for e-content development such as Media centre, Recording facility Lecture Capturing System (LCS)	<p style="text-align: center;">NO Yes/ No; If Yes</p> <p>Mention the names of the e-content development facilities (Nature of Media Centre, Recording facility ;Date of Installation)</p>				
CRITERION V: STUDENT SUPPORT AND PROGRESSION						
Key Indicator - 5.1 Student Support						

Metric No. (as per NAAC Manual)	Description (as per NAAC Manual, July 2017, for Reference purposes)	Data Requirement from Department (For Academic years 2012-13 to 2016-17)	Academic Years 2012-13 to 2016-17				
			2012-13	2013-14	2014-15	2015-16	2016-17
5.1.1	Average percentage of students benefited by scholarships and free-ships provided by the Government during the last five years	Number of students benefited (M.Sc.)	2	2	2	2	2
		Total no of student (M.Sc.)	19	21	22	21	21
5.1.2	Average percentage of students benefited by scholarships, free-ships, etc. provided by the University besides government schemes during the last five years	Number of students benefited (M.Sc.)	4	4	4	4	4
		Name of the scheme with contact information	Monsanto Post-graduate scholarship				
5.1.3	Number of capability enhancement and development Scheme (Total number in last five years) NONE	1.Guidance for competitive examinations					
		2. Career Counseling					
		3. Soft skill development					
		4. Remedial coaching					
		5. Language lab					
		6. Bridge courses					
		7. Yoga and Meditation					
		8. Personal Counseling					
Options: 7 or more of the above Any 6 of the above Any 5 of the above Any 4 of the above Any 3 of the above							

		Please provide 1. Name of the capability enhancement scheme 2. Year of implementation 3. Number of students enrolled 4. Name of the agencies involved with contact details				
5.1.4	Average percentage of students benefited by guidance for competitive examinations and career counselling offered by the University during the last five years NONE	Number of students who have passed in the competitive exam				
		Number of students placed				
		Name of the scheme				
Key Indicator - 5.2 Student Progression						
5.2.1	Average percentage of placement of outgoing students during the last five years NONE	Name of the employer with contact details				
		Number of students placed				
		Total no. of outgoing students who opted for campus placement				
5.2.2	Percentage of student progression to higher education (previous graduating batch)	Number of students proceeding from				
		UG to PG	10% join DU; remaini	7% join DU; remainin g go to	8% join DU; remaining go to	10% join DU; remaining go to

			ng go to other Universities	other Universities	other Universities	other Universities	other Universities
		PG to MPhil	0%	0%	0%	0%	0%
		PG to PhD	20% join DU; remaining go to other National & International Institutions	20% join DU; remaining go to other National & International Institutions	20% join DU; remaining go to other National & International Institutions	20% join DU; remaining go to other National & International Institutions	20% join DU; remaining go to other National & International Institutions
		MPhil to PhD	0%	0%	0%	0%	0%
		PhD to Post-doctoral	25% join DU; remaining go to other National & International Institutions	20% join DU; remaining go to other National & International Institutions	20% join DU; remaining go to other National & International Institutions	15% join DU; remaining go to other National & International Institutions	10% join DU; remaining go to other National & International Institutions
		Total No. of final year students Post Graduate: 57 M.Phil: 23 Ph.D.: 29	10 05 04	12 04 04	11 05 02	12 06 10	12 03 09
5.2.3	Average percentage of students qualifying in state/ national/ international level examinations	Number of students selected to					

<p>during the last five years (eg: NET/SLET/GATE/GMAT/CAT / GRE/TOEFL/Civil Services/State government examinations)</p>	NET	05	08 (1 OBC)	06	07 (1 OBC, 1 SC)	02
	SLET	0	0	0	0	0
	GATE	06	09	08	07	0
	GMAT	-	-	-	-	-
	CAT	-	-	-	-	-
	GRE	-	-	-	-	01
	TOEFL	-	-	-	-	01
	CIVIL SERVICES	-	-	-	-	-
	STATE GOVERNMENT EXAMINATIONS	-	-	-	-	-
	Please provide some exemplary documentary evidence from students/alumni data base	Copy of award letters from students.				
Total number of students who appeared in National/ International exams	10	12	11	12	12	
Key Indicator-5.4 Alumni Engagement						
5.4.2	<p>Alumni contribution during the last five years</p> <p style="text-align: center;">NONE</p>	Alumni contribution during the last five years				
		<p>Options:</p> <p>A. \geq 100 Lakhs</p> <p>B. 50Lakhs - 100 Lakhs</p> <p>C. 20 Lakhs - 50 Lakhs</p> <p>D. 5 Lakhs - 20 Lakhs</p> <p>E. <5 Lakhs</p>				

		Name of the alumnus/ alumni association:					
		Quantum of contribution:					
		Documents required					
		· Annual audited statements of accounts					
		· Alumni association audited statements					
5.4.3	Number of Alumni Association /Chapters meetings held during the last five years NONE	Number of alumni association meetings					
		Dates of meetings					
Criterion VI: Governance, Leadership and Management							
Key Indicator - 6.3 Faculty Empowerment Strategies							
Metric No. (as per NAAC Manual)	Description (as per NAAC Manual, July 2017, for Reference purposes)	Data Requirement from Department (For Academic years 2012-13 to 2016-17)	Academic Years 2012-13 to 2016-17				
			2012-13	2013-14	2014-15	2015-16	2016-17

6.3.4	Number of teachers attending professional development programme Viz. Orientation programme, Refresher course, Short term course, Faculty Development Programme	Orientation programme					
		Refresher course					
		Short Term Course					
		Faculty Development Programme					
NONE							

Supporting Documents Required: Reports of the Human Resource Development Centres (UGC- ASC or other relevant centres);

Criterion VII – Institutional Values and Best Practices

Key Indicator - 7.1 Institutional Values and Social Responsibilities

Metric No. (as per NAAC Manual)	Description (as per NAAC Manual, July 2017, for Reference purposes)	Data Requirement from Department (For Academic years 2012-13 to 2016-17)	Academic Years 2012-13 to 2016-17				
			2012-13	2013-14	2014-15	2015-16	2016-17

7.1.1 Gender Equity

7.1.1.1	Number of gender equity promotion programs organized by the Department during the last five years NONE	Number of gender equity promotion programs					
	Supporting Documents Required: Please provide Title of the programme, Duration (From – To), and Number of participants						
7.1.2.1	Percentage of power requirement of the department met by the renewable energy sources NONE	Power requirement met by renewable energy sources	Total power requirement				
7.1.2.6	Average percentage expenditure on green initiatives and waste management excluding salary component during the last five years NONE	Expenditure on green initiatives and waste management excluding salary component	Annual expenditure excluding salary component of the department				
7.1.3	Differently abled (Divyangjan) Friendliness Resources available in the department	1. Physical facilities	X				
		2. Provision for lift	X				
		3. Ramp / Rails	Ramp (photo attached)				
		4. Braille Software/facilities	X				
		5. Rest Rooms	1 (PwD) (Photo attached)				
		6. Scribes for examination	X				
		7. Special skill development for	X				

		differently abled students	
		8. Any other similar facility (Specify)	X
		Options: A. 7 and more of the above B. At least 6 of the above C. At least 4 of the above D. At least 2 of the above E. None of the above D	
		Supporting Documents Required: Please provide Photos and Videos (Physical facilities, Provision for lift, Ramp/ Rails, Braille Software/, Facilities, Rest Rooms, Scribes for examination, Special skill development for differently abled students, Any other similar facility)	

7.1.4 Inclusion and Situatedness

7.1.4	Number of specific initiatives to address locational advantages and disadvantages during the last five years	Number of initiatives to address locational advantages and disadvantages					
		Number of initiatives taken to engage with and contribute to local community during the last five years (Not addressed elsewhere)					
	NONE						

7.1.5 Human Values and Professional Ethics

7.1.5	Code of conduct handbook exists for students, teachers, governing body, administration including Vice Chancellor / Director / Principal /Officials and support staff	(Yes/No) NO
7.1.5	Display of core values in the institution and on its website	(Yes/No) NO
7.1.5	The Department plans and organizes appropriate activities to increase consciousness about national identities and symbols; Fundamental Duties and Rights of Indian citizens and other constitutional obligations	(Yes/No) NO
7.1.5	The Department offers a course on Human Values and professional ethics.	(Yes/No) NO

7.1.5	The Departmental functioning is as per professional code of prescribed / suggested by statutory bodies / regulatory authorities for different professions.	(yes/No) NO					
7.1.5	Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties during the last five years NONE	Title of the Programme/Activity					
		Duration (From-to)					
		Number of participants					
		Supporting Documents Required: Please provide University code of conduct for students University code of conduct for teachers Handbooks, manuals and brochures on human values and professional ethics. Report on the student attributes facilitated by the Department					

7.1.5	<p>Department organizes national festivals and birth / death anniversaries of the great Indian personalities.</p>	<p>(Yes/No)</p> <p>Yes</p>	<p>Supporting Documents Required:</p> <p>Please provide a description of efforts of the Department organizing national festivals and birth / death anniversaries of the great Indian personalities</p> <p>Rashtriya Ekta Diwas, 31st October, 2014 (Birth anniversary of legendary Sardar Vallabhbai Patel)</p> <p>Independence Day Celebration</p> <p>Yoga day Celebration</p> <p>Report and photographs attached.</p>
7.1.5	<p>The institution maintains complete transparency in its financial, academic, administrative and auxiliary functions</p> <p>NONE</p>	<p>(Yes/No).</p>	<p>Supporting Documents Required:</p> <p>Please provide a description of efforts of the Institution towards maintains of complete transparency in its financial, academic, administrative and auxiliary functions in not more than 100 words.</p>

Department of Biochemistry

Papers published in Peer Reviewed National & International Journals

2017

1. Sharma, S., Rajendran, V., Kulshreshtha, R., & Ghosh, P.C. (2017). Enhanced Efficacy of anti-miR-191 Delivery through Stearylamine Liposome Formulation for the treatment of Breast Cancer Cells. *International Journal of Pharmaceutics*, 530, 387-400. ISSN: 0378-5173.
2. Kumar, P., Achieng, A., Rajendran, V., Ghosh, P.C., Singh, B., Perkins, D., Rawat, M., Kempaiah, P., & Rathi, B. (2017). Synergistic blending of high-valued heterocycles inhibits growth of Plasmodium falciparum in culture and P. berghei infection in mouse model. *Scientific Reports*, 7(1), 6724. ISSN: 2045- 2322.
3. Sharma, S., Nagpal, N., Ghosh, P.C., & Kulshreshtha, R. (2017). P53-miR-191-SOX4 regulatory loop affects apoptosis in breast cancer. *RNA*, 23, 1237-1246. ISSN: 1355-8382 (print), 1469-9001(web).
4. Vandana, N, Haseen, J, Ghosh, P.C., Jain, S., & Boetra, A. (2017). Liposomes: Drug delivery system or possible doping agent? *Journal of Drug Delivery and Therapeutics*, 7, 25-29. ISSN: 2250-1177.
5. Zakaria, M.K., Sarkar, D.P., & Chattopadhyay, P. (2017). Induction of Transcriptional Gene Silencing by Expression of shRNA Directed to c-Myc P2 Promoter in Hepatocellular Carcinoma by Tissue-Specific Virosomal Delivery. *Methods in Molecular Biology*, 1543, 245-257. ISSN: 1064-3745.
6. Mukhi, N., Kundu, S., & Kaur, J. (2017). NO dioxygenase- and peroxidase-like activity of Arabidopsis phytooglobin 3 and its role in *Sclerotinia sclerotiorum* defense. *Nitric Oxide*, 68, 150-162. ISSN: 1089-8603.
7. Punaichira, T. J., Dey, S. K., Mukhopadhyay, A., Kundu, S., & Thelma, B. K. (2017). Characterization of SNPs in the dopamine-beta-hydroxylase gene providing new insights into its structure-function relationship. *Neurogenetics*, 18, 155-168. ISSN: 1364-6745 (print), 1364-6753 (online).
8. Sharma, B., Jamdar, S. N., Ghosh, B., Yadav, P., Kumar, A., Kundu, S., Goyal, V. D., & Makde, R. D. (2017). Active site gate of M32 carboxypeptidases illuminated by crystal structure and molecular dynamics simulations. *Biochimica et Biophysica Acta-Proteins and Proteomics*, 1865, 1406-1415. ISSN: 1570-9639.
9. John, R., Atri, Y., Chand, V., Jaiswal, N., Raj, K., & Nag, A. (2017). Cell Cycle-Dependent Regulation of Cytoglobin by Skp2. *FEBS Letters*. 591, 3507-3522. ISSN : 0014-5793 (print), 1873-3468 (web).

10. Chowdhury, K., Sharma, A., Kumar, S., Gunjan, G.K., Nag, A., & Mandal CC. (2017). Colocynth Extracts Prevent Epithelial to Mesenchymal Transition and Stemness of Breast Cancer Cells. *Frontiers in Pharmacology*, 8, 593. ISSN :1663-9812.
11. Gupta, A., Venkataraman, B., Vasudevan, M., & Gopinath Bankar, K. (2017). Co-expression network analysis of toxin-antitoxin loci in Mycobacterium tuberculosis reveals key modulators of cellular stress. *Scientific Reports*, 7, 5868. ISSN: 2045-2322 (online)
12. Khare, G., Nangpal, P., & Tyagi, A. K. (2017). Differential Roles of Iron Storage Proteins in Maintaining the Iron Homeostasis in Mycobacterium tuberculosis. *PLoS One*, 12(1), e0169545. ISSN: 1932-6203
13. Rohilla, A., Khare, G., & Tyagi, A. K. (2017). Virtual Screening, pharmacophore development and structure based similarity search to identify inhibitors against IdeR, a transcription factor of Mycobacterium tuberculosis. *Scientific Reports*, 7, 4653. ISSN: 2045-2322 (online)

2016

14. Rajendran, V., Hasan, G.M., Kumar, N., Dutt, S., Garg, N., Tiwari, P., & Ghosh, P.C. (2016). Therapeutic efficacy of chloroquine in long circulating liposome formulations against chloroquine-resistant *Plasmodium berghei* infection in mice. *European Journal of Biomedical and Pharmaceutical Sciences*, 3, 258-264. ISSN: 2349-8870.
15. Gupta, E., Pachauri, M., Ghosh, P. C., & Rajam, M.V. (2016). Targeting polyamine biosynthetic pathway through RNAi causes the abrogation of MCF 7 breast cancer cell line. *Tumour Biology*, 37, 1159-1171. ISSN: 1010-4283 (print), 1423-0380 (web)
16. Jha, D., Raza, M., Adak, T., & Ghosh, P. C. (2016). Alteration in *Plasmodium falciparum* proteome upon treatment with various anti-malarial drugs. *Journal of Proteins Proteomics*, 7, 1-17. ISSN No. 0975-8151.
17. Rajendran, V., Rohra, S., Raza, M., Hasan, G. M., Dutt, S., & Ghosh, P.C. (2016). Stearylamine liposomal delivery of monensin in combination with free artemisinin eliminates blood stages of plasmodium falciparum in culture and P. berghei infection in murine malaria. *Antimicrobial Agents and Chemotherapy*, 60, 1304-1318. ISSN: 0066-4804 (print), 1098-6596 (web).
18. Uppal, S., Singh, A. K., Arya, R., Tewari, D., Jaiswal, N., Kapoor, A., Bera, A. K., Nag, A., & Kundu, S. (2016). Phe28B10 Induces Channel-Forming Cytotoxic Amyloid Fibrillation in Human Neuroglobin, the Brain-Specific Hemoglobin. *Biochemistry*, 55, 6832-6847. ISSN : 0006-2960 (print), 1520-4995 (web).
19. Uppal, S., Kumar, A., Shandilya, M., Mukhi, N., Singh, A. K., Kateriya, S., Kaur, J., & Kundu, S. (2016). Penta- and hexa-coordinate ferric hemoglobins display distinct pH titration profiles measured by Soret peak shifts. *Analytical Biochemistry*, 510, 120-128. ISSN: 0003-2697 (print), 1096-0309 (web).

20. Mukhi, N., Dhindwal, S., Uppal, S., Kapoor, A., Arya, R., Kumar, P., Kaur, J., & Kundu, S. (2016). Structural and functional significance of the N- and C-terminal appendages in *Arabidopsis* truncated hemoglobin. *Biochemistry*, *55*, 1724-1740. ISSN: 0006-2960 (print), 1520-4995 (web).
21. Jebamercy, G., Durai, S., Marudhupandiyan, S., Dasauni, P., Kundu, S., & Balamurugan, K. (2016). Role of DAF-2 in *Caenorhabditis elegans* immunity against *Proteus mirabilis* infection. *Journal of Proteomics*, *145*, 81-90. ISSN: 1874-3919.
22. Kumar, V.B., Durai, S., Kundu, S., & Balamurugan, K. (2016). Proteome analysis reveals translational inhibition of *Caenorhabditis elegans* enhances susceptibility to *Pseudomonas aeruginosa* PAO1 pathogenesis. *Journal of Proteomics*, *145*, 141-152. ISSN: 1874-3919
23. Singhal, P., Sharma, U., Hussain, S., Nag, A., & Bharadwaj, M. (2016). Identification of genetic variants in TNF receptor 2 which are associated with the development of cervical carcinoma. *Biomarkers*, *21*, 665-672. ISSN: 1354-750X (print), 1366-5804 (web).
24. Chand, V., Nandi, D., Mangla, A. G., Sharma, P., & Nag, A. (2016). Tale of a multifaceted co-activator, hADA3: from embryogenesis to cancer and beyond. *Open Biology*, *6*(9) pii: 160153. ISSN: 2046-2441.

2015

25. Sharma, S., Rajmani, R. S., Kumar, A., Bhaskar, A., Singh, A., Manivel, V., Tyagi, A.K., & Rao, K.V. (2015). Differential proteomics approach to identify putative protective antigens of mycobacterium tuberculosis presented during early stages of macrophage infection and their evaluation as DNA vaccines. *Indian Journal of Experimental Biology*, *53*, 429-439. ISSN: 0975-1009 (online), 0019-5189 (print).
26. Singh, A. K., Rathore, S., Tang, Y., Nathan E., Goldfarb, B., Dunn, M., Vinoth, R., Ghosh, P. C., Singh, N., Latha, N., Brajendra, K., Rawat, M., & Rathi, M. (2015). Hydroxyethylamine based phthalimides as new class of plasmepsin hits: design, synthesis and antimalarial evaluation. *PLoS One*, *10*(10), e0139347. ISSN: 1932-6203
27. Pachauri, M., Gupta, E., & Ghosh, P.C. (2015). Piperine loaded PEG-PLGA nanoparticles: preparation, characterization and targeted delivery for adjuvant breast cancer chemotherapy. *Journal of Drug Delivery Science Technology*, *29*, 269–282. ISSN: 1773-2247.
28. Tyagi, N., Tyagi, M., Pachauri, M., & Ghosh, P.C. (2015). Potential therapeutic applications of plant toxin-ricin in cancer: challenges and advances. *Tumor Biology*, *36*, 8239-8246. ISSN: 1010-4283 (print), 1423-0380 (online)
29. Singh, A.K., Rajendran, V., Pant, A., Ghosh, P.C., Singh, N., Lata, N., Garg, S., Pandey, K., Singh, B.K., & Singh, B. (2015). Design, synthesis and biological evaluation of functionalized Phthalimides: A new class of antimalarials and inhibitors of falcipain-2, a major hemoglobinase of malaria parasites. *Bioorganic & Medicinal Chemistry*, *23*, 1817-1827. ISSN: 0968-0896.

30. Kumar, M., Mani, P., Pratheesh, P., Chandra, S., Jeyakkodi, M., Chattopadhyay, P., Sarkar, D.P., & Sinha, S. (2014). Membrane fusion mediated targeted cytosolic drug delivery through scFv engineered Sendai viral envelopes. *Current Molecular Medicine*, 15, 386-400. ISSN: 1875-5666 (online), 1566-5240 (print).
31. Das, P., Saha, S., Chandra, S., Das, A., Dey, S.K., Das, M.R., Sen, S., Sarkar, D.P., & Jana, S.S. (2015). Phosphorylation of Nonmuscle myosin II-A regulatory light chain resists Sendai virus fusion with host cells. *Scientific Reports*, 5, 10395. ISSN: 2045-2322.
32. Khan, I., Zakaria, M.K., Kumar, M., Mani, P., Chattopadhyay, P., Sarkar, D.P., & Sinha, S. (2015). A novel placental like alkaline phosphatase promoter driven transcriptional silencing combined with single chain variable fragment based virosomal delivery for neoplastic cell targeting. *Journal of Translational Medicine* 13, 254. ISSN:1479-5876.
33. Yadav, R., Kundu, S., & Sarkar, S. (2015). Drosophila glob1 expresses dynamically and is required for development and oxidative stress response. *Genesis*, 53, 719-737. ISSN: 1526-954X (print), 1526-968X (web).
34. Kumar, A., Arya, R., Makwana, P., Dangi, R., Yadav, U., Surolia, A., Kundu, S., & Sundd, M. (2015). The structure of the holo-acyl carrier protein of *Leishmania majordi* displays a remarkably different phosphopantetheinyl transferase (PPT) binding interface. *Biochemistry*, 54, 5632-5645. ISSN: 0006-2960 (print), 1520-4995 (web).
35. Sharma, S., Kumar, A., Kundu, S., & Bandhopadhyay, P. (2015). Molecular dynamics simulations indicate that tyrosine B10 limits motions of distal histidine to regulate CO binding in soybean leghemoglobin. *Proteins: Structure Function, Bioinformatics*, 83, 1836-1848. ISSN: 1097-0134.
36. Singh, K., Shandilya, M., Kundu, S., & Kayastha, A.M. (2015). Heat, acid and chemically induced unfolding pathways, conformational stability and structure-function relationship in wheat alpha-amylase. *PLoS One*, 10(6), e0129203. ISSN: 1932-6203.
37. Seal, M., Uppal, S., Kundu, S., & Dey, S.G. (2015). Interaction of aponeuroglobin with Heme-A β complexes relevant to alzheimer's disease. *Journal of Biological Inorganic Chemistry*, 20, 563-574. ISSN: 0949-8257 (print), 1432-1327 (web).
38. Uppal, S., Salhotra, S., Mukhi, N., Zaidi, F.K, Seal, M., Ghosh Dey, S., Bhat, R., & Kundu, S. (2015). Significantly enhanced heme retention ability of myoglobin engineered to mimic the third covalent linkage by non-axial histidine to heme (vinyl) in *Synechocystis* hemoglobin. *Journal of Biological Chemistry*, 290, 1979-1993. ISSN: 0021-9258 (print), 1083-351X (web).
39. Jaiswal, N., John, R., Chand, V., & Nag, A. (2015). Oncogenic human papillomavirus16E7 modulates SUMOylation of FoxM1b. *The International Journal of Biochemistry & Cell Biology*, 58C, 28-38. ISSN: 1357-2725.
40. Kumar, S., Nag, A., & Mandal, C.C. (2015). A comprehensive review on miR-200c, a promising cancer biomarker with therapeutic potential. *Current Drug Targets*, 16, 1381-1403. ISSN: 1389-4501(print), 1873-5592(web).
41. Singhal, P., Anoop, K., Hussain, S, Nag, A., & Bharadwaj, M. (2015). NFKB1/NFKBI a polymorphisms are associated with the progression of cervical carcinoma in HPV-infected postmenopausal women from rural area. *Tumour Biology*, 36, 6265-6276. ISSN: 1010-4283 (print), 1423-0380 (web).

42. Kumar, D., Khare, G., Kidwai, S., Tyagi, A. K., Singh, R., & Rawat, D. S. (2015). Novel isoniazid–amidoether derivatives: synthesis, characterization and antimycobacterial activity evaluation. *Medicinal Chemistry Communications*, 6, 131-137. ISSN: 2040-2503 (print), 2040-2511 (online).

2014

43. Rahman, S. A., Singh, Y., Kohli, S., Ahmad, J., Ehtesham, N. Z., Tyagi, A.K., & Hasnain, S. E. (2014). Comparative analyses of nonpathogenic, opportunistic, and totally pathogenic mycobacteria reveal genomic and biochemical variabilities and highlight the survival attributes of mycobacterium tuberculosis. *mBio*, 5(6), e02020-14. ISSN: 2150-7511 (online).
44. Singh, Y., Kohli, S., Sowpati, D. T., Rahman, S. A., Tyagi, A.K., & Hasnain, S.E. (2014). Gene cooption in Mycobacteria and search for virulence attributes: comparative proteomic analyses of mycobacterium tuberculosis, mycobacterium indicuspranii and other mycobacteria. *International Journal of Medical Microbiology*, 304, 742-748. ISSN: 1438-4221.
45. Puri, R. V., Reddy, P. V., & Tyagi, A.K. (2014). Apurinic/Apyrimidinic endonucleases of mycobacterium tuberculosis protect against dna damage but are dispensable for the growth of the pathogen in guinea pigs. *PloS One*, 9(5), e92035. ISSN: 1932-6203.
46. Chaudhary, V. K., Shrivastava, N., Verma, V., Kaur, C., Grover, P., Das, S., & Gupta, A. (2014) Rapid restriction enzyme-free cloning of PCR products: a high-throughput method applicable for library construction. *PLoS One*, 9(10), e111538. ISSN: 1932-6203.
47. Rana, J., Rajasekharan, S., Gulati, S., Dudha, N., Gupta, A., Chaudhary, V.K., & Gupta, S. (2014). Network mapping among the functional domains of Chikungunya virus nonstructural proteins. *Proteins*, 82, 2403-11. ISSN: 1572-3887.
48. Gupta, R., Rajendran, V., Ghosh, P.C., & Srivastava, S. (2014). Assessment of anti-plasmodial activity of non-hemolytic, non-immunogenic, non-toxic antimicrobial peptides (AMPs LR14) produced by *Lactobacillus plantarum* LR/1. *Drugs in R&D*, 14, 95-103. ISSN: 1174-5886 (print), 1179-6901 (web).
49. Mahajan, R., Kumar, V., Rajendran, V., Saran, S., Ghosh, P.C., & Saxena, R. (2014). Purification and characterization of a novel and robust L-asparaginase having low glutaminase activity from *Bacillus licheniformis*: in vitro evaluation of anti-cancerous properties. *PLoSOne*, 9(6), e99037. ISSN: 1932-6203.
50. Zakaria, M. K., Khan, I., Mani, P., Chattopadhyay, P., Sarkar, D.P., & Sinha, S. (2014). Combination of hepatocyte specific delivery and transformation dependent expression of shRNA inducing transcriptional gene silencing of c-Myc promoter in hepatocellular carcinoma cells. *Biomedical Central Cancer*, 14, 582-588. ISSN: 1471-2407.
51. Zakaria, M.K., Khan, I., Mani, P., Sarkar, D.P., Chattopadhyay, P., Sinha, S. (2014). Epigenetic repression of c-Myc P2 promoter by Sendai F-virosome mediated delivery of tumor specific shRNA in Hepatoma cells. *Molecular Biology of Cell*, 25, 3987. ISSN: 1939-4586 (online), 1059-1524 (print).

52. Dey, S.K., & Kundu, S. (2014). The Indian Wizard of Biophysics: Remembering G.N. Ramachandran in the International Year of Crystallography. *Journal of Proteins and Proteomics*, 5, 65-72. ISSN: 0975-8151.
53. Durai, S., Singh, N., Kundu, S., & Balamurugan, K. (2014). Proteomic investigation of *Vibrio alginolyticus* challenged *Caenorhabditis elegans* revealed regulation of cellular homeostatis proteins and their role in supporting innate immune system. *Proteomics*, 14, 1820-1832. ISSN: 1615-9861.
54. Oshtrakh, M.I., Kumar, A., Alenkina, I.V., Zakharova, A.P., Semionkin, V.A., & Kundu, S. (2014). Characterization of monomeric soybean leghemoglobin using Mössbauer spectroscopy with a high velocity resolution. *Hyperfine Interactions*, 226, 431-438. ISSN: 0304-3843 (print), 1572-9540 (online).
55. John, R., Chand, V., Chakraborty, S., Jaiswal, N., & Nag, A. (2014). DNA damage induced activation of Cygb stabilizes p53 and mediates G1 arrest. *DNA Repair*, 24, 107-112. ISSN: 1568-7864.
56. Chand, V., John, R., Jaiswal, N., Johar, S., & Nag, A. (2014). High risk HPV16E6 stimulates hADA3 degradation by enhancing its SUMOylation. *Carcinogenesis*, 35, 1830-9. ISSN: 0143-3334 (print), 1460-2180 (web).
57. Chakraborty, S., John, R., & Nag, A. (2014). Cytoglobin in tumor hypoxia: novel insights into cancer suppression. *Tumor Biology*, 35, 6207-6219. ISSN: 1010-4283 (print), 1423-0380 (web).
58. Jaiswal, N., Chakraborty, S., & Nag, A. (2014). Biology of FOXM1 and its emerging role in cancer therapy. *Journal of Proteins and Proteomics*, 5, 1-24. ISSN: 0975-8151.
59. Sharma, P., & Nag, A. (2014). CUL4A ubiquitin ligase: a promising drug target for cancer and other human diseases. *Open Biology*, 4, 130217. ISSN: 2046-2441.
60. Ranjan, P., Kashyap, R. S., Goel, M., Veetil, S. K., & Kateriya, S. (2014). Cellular organelles facilitate dimerization of a newly identified arf from chlamydomonas reinhardtii. *Journal of Phycology*, 50, 1137-1145. ISSN: 0022-3646 (print), 1529-8817 (web).
61. Penzkofer, A., Tanwar, M., Veetil, S., Kateriya, S., Stierl, M., & Hegemann, P. (2014). Photo-dynamics of BLUF domain containing adenylyl cyclase NgPAC3 from the amoeboflagellate Naegleriagruberi NEG-M strain. *Journal of Photochemistry and Photobiology A: Chemistry*, 287, 19-29. ISSN: 1010-6030.
62. Tanwar, M., Stierl, M., Veetil, S. K., Penzkofer, A., Hegemann, P., & Kateriya, S. (2014). Biochemical characterization of photoactivated adenylyl cyclase from Naegleriagruberi. *Journal of Proteins and Proteomics*, 5, 35-39. ISSN: 0975-8151.
63. Kumar, D., Beena, Khare, G., Kidwai, S., Tyagi, A.K., Singh, R., & Rawat, D. S. (2014). Synthesis of novel 1, 2, 3-triazole derivatives of isoniazid and their in vitro and in vivo antimycobacterial activity evaluation. *European Journal of Medicinal Chemistry*, 81, 301-313. ISSN: 0223-5234.

2013

64. Khare, G., Reddy, P. V., Sidhwani, P., & Tyagi, A.K. (2013). KefB inhibits phagosomal acidification but its role is unrelated to *M. tuberculosis* survival in host. *Scientific Reports*, 3, 3527. ISSN: 2045-2322 (online)
65. Khare, G., Kumar, P., & Tyagi, A. K. (2013). Whole-cell screening-based identification of inhibitors against the intraphagosomal survival of *Mycobacterium tuberculosis*. *Antimicrobial Agents and Chemotherapy*, 57(12), 6372-6377. ISSN: 0066-4804 (print), 1098-6596 (online)
66. Chauhan, P., Reddy, P. V., Singh, R., Jaisinghani, N., Gandotra, S., & Tyagi, A. K. (2013). Secretory phosphatases deficient mutant of *Mycobacterium tuberculosis* imparts protection at the primary site of infection in guinea pigs. *PloS One*, 8(10), e77930. ISSN: 1932-6203
67. Puri, R. V., Singh, N., Gupta, R. K., & Tyagi, A. K. (2013). Endonuclease IV Is the major apurinic/aprimidinic endonuclease in *Mycobacterium tuberculosis* and is important for protection against oxidative damage. *PloS One*, 8(8), e71535. ISSN: 1932-6203
68. Puri, R. V., Reddy, P. V., & Tyagi, A. K. (2013). Secreted acid phosphatase (SapM) of *Mycobacterium tuberculosis* is indispensable for arresting phagosomal maturation and growth of the pathogen in guinea pig tissues. *PloS One*, 8(7), e70514. ISSN: 1932-6203
69. Reddy, P. V., Puri, R. V., Chauhan, P., Kar, R., Rohilla, A., Khera, A., & Tyagi, A. K. (2013). Disruption of mycobactin biosynthesis leads to attenuation of *Mycobacterium tuberculosis* for growth and virulence. *The Journal of Infectious Diseases*, 208, 1255-1265. ISSN: 1537-6613 (online), 0022-1899 (print)
70. Chauhan, P., Jain, R., Dey B., & Tyagi, A.K. (2013). Adjunctive immunotherapy with alpha-crystallin based DNA vaccination reduces tuberculosis chemotherapy period in chronically infected mice. *Scientific Reports*, 3, 1821. ISSN: 2045-2322 (online)
71. Khare, G., Nangpal, P., & Tyagi, A. K. (2013). Unique residues at the 3-fold and 4-fold axis of mycobacterial ferritin are involved in oligomer switching. *Biochemistry*, 52(10), 1694-1704. ISSN: 0006-2960 (print), 1520-4995 (online).
72. Dobhal, S., Chaudhary, V. K., Singh, A., Pandey, D., Kumar, A., & Agrawal, S. (2013). Expression of recombinant antibody (single chain antibody fragment) in transgenic plant *Nicotianatabacum* cv. Xanthi. *Molecular Biology Reports*, 40, 7027-7037. ISSN: 0301-4851
73. Gupta, A., Shrivastava, N., Grover, P., Singh, A., Mathur, K., Verma, V., Kaur, C., & Chaudhary, V.K. (2013). A novel helper phage enabling construction of genome-scale ORF-enriched phage display libraries. *PLoS One*, 8(9), e75212. ISSN: 1932-6203.
74. Goel, D., Rajendran, V., Ghosh, P. C., & Bhatnagar, R. (2013). Cell mediated immune response after challenge in Omp25 liposome immunized mice contributes to protection against virulent *Brucella abortus* 544. *Vaccine*, 31, 1231-1237. ISSN: 0264-410X.

75. Tyagi, N., Rathore, S. S., & Ghosh, P. C. (2013). Efficacy of liposomal monensin on the enhancement of the antitumour activity of liposomal ricin in human epidermoid carcinoma (KB) cells. *Indian Journal of Pharmaceutical Sciences*, 75, 16. ISSN: 0250-474X (print), 1998-3743 (web).
76. Ray, A., Roy, C.L., Kumar, A., Mani, P., Joseph, A.P., Sudha, G., Sarkar, D.P., Srinivasan, N., & Das, S. (2013). Inhibition of the interaction between NS3 protease and HCV IRES with a small peptide: A novel therapeutic strategy. *Molecular Therapy*, 21, 57-67. ISSN: 1525-0016.
77. Mukhi, N., Dhindwal, S., Uppal, S., Kumar, P., Kaur, J., & Kundu, S. (2013). X-ray crystallographic structural characteristics of Arabidopsis hemoglobin 1 and their functional implications. *Biochimica et BiophysicaActa*, 1834, 1944-1956. ISSN: 1570-9639.
78. Kumar, P., Patil, D.N., Chaudhary, A., Tomar, S., Yernool, D., Singh, N., Dasauni, P., Kundu, S., & Kumar, P. (2013). Purification and biophysical characterization of 11S globulin from *Wrightiatintoria* exhibiting hemagglutinating activity. *Protein and Peptide Letters*, 20, 499-509. 1875-5305 (online), 0929-8665 (print)
79. Patil, D.N, Datta, M., Dev, A., Dhindwal, S., Singh, N., Dasauni, P., Kundu, S., Sharma, A. K, Tomar, S., & Kumar, P. (2013). Structural investigation of a novel N-acetyl glucosamine binding chi-lectin which reveals evolutionary relationship with class III chitinases. *PLoS One*, 8(5), e63779. ISSN: 1932-6203.
80. Basireddy, S., Uppal, S., Singh, A.K., &Kundu, S. (2013). An evaluation of potential intrinsically disordered and amyloidogenic regions in hemoglobins. *Journal of Proteins and Proteomics*, 4, 231-248.ISSN: 0975-8151.
81. Jangir, D.K., Kundu, S., & Mehrotra, R. (2013). Role of minor groove width and hydration pattern on amsacrine interaction with DNA. *PLoS One*, 8(7), e69933.ISSN: 1932-6203.
82. Penzkofer, A., Tanwar, M., Veetil, S. K., Kateriya, S., Stierl, M., & Hegemann, P. (2013). Photo-dynamics and thermal behavior of the BLUF domain containing adenylate cyclase NgPAC2 from the amoebflagellate *Naegleriagruberi* NEG-M strain. *Chemical Physics*, 412, 96-108.ISSN: 0301-0104.
83. Sizova, I., Greiner, A., Awasthi, M., Kateriya, S., & Hegemann, P. (2013). Nuclear gene targeting in *Chlamydomonas* using engineered zinc-finger nucleases. *The Plant Journal*, 73(5), 873-882. ISSN: 1365-313X.
84. Penzkofer, A., Tanwar, M., Veetil, S., Kateriya, S., Stierl, M., & Hegemann, P. (2013). Photo-dynamics and thermal behavior of the BLUF domain containing adenylate cyclase NgPAC2 from the amoebflagellate *Naegleriagruberi* NEG-M strain. *Chemical Physics*, 412, 96-108.ISSN: 0301-0104.
85. Penzkofer, A., Tanwar, M., Veetil, S. K., Kateriya, S., Stierl, M., & Hegemann, P. (2013). Photo-dynamics of the lyophilized photo-activated adenylate cyclase NgPAC2 from the amoebflagellate *Naegleriagruberi* NEG-M strain. *Chemical Physics*, 423, 192-201. ISSN: 0301-0104.

2012

86. Jain, R., Dey, B., & Tyagi, A.K. (2012). Development of the first oligonucleotide microarray for global gene expression profiling in guinea pigs: defining the transcription signature of infectious diseases. *BMC Genomics*, *13*, 520-530. ISSN: 1471-2164
87. Saini, V., Raghuvanshi, S., Khurana, J. P., Ahmed, N., Hasnain, S. E., Tyagi, A. K., & Tyagi, A.K. (2012). Massive gene acquisitions in mycobacterium indicuspranii provide a perspective on mycobacterial evolution. *Nucleic Acids Research*, *40*, 10832-10850. ISSN: 1362-4962 (online), 0305-1048 (print).
88. Reddy, P. V., Puri, R. V., Khera, A., & Tyagi, A.K. (2012). Iron storage proteins are essential for the survival and pathogenesis of mycobacterium tuberculosis in THP-1 macrophages and the guinea Pig Model of Infection. *Journal of Bacteriology*, *194*, 567-575. ISSN: 0021-9193 (print), 1098-5530 (online)
89. Saini, V., Raghuvanshi, S., Khurana, J. P., Ahmed, N., Hasnain, S. E., Tyagi, A. K., & Tyagi, A. K. (2012). Massive gene acquisitions in Mycobacterium indicuspranii provide a perspective on mycobacterial evolution. *Nucleic Acids Research*, *40*, 10832-10850. ISSN: 1362-4962 (online), 0305-1048 (print).
90. Reddy, P. V., Puri, R. V., Khera, A., & Tyagi, A. K. (2012). Iron storage proteins are essential for the survival and pathogenesis of Mycobacterium tuberculosis in THP-1 macrophages and the guinea pig model of infection. *Journal of Bacteriology*, *194*, 567-575. ISSN: 0021-9193 (print), 1098-5530 (online).
91. Kumar, K., Rana, J., Sreejith, R., Gabrani, R., Sharma, S. K., Gupta, A., Chaudhary, V.K., & Gupta, S. (2012). Intraviral protein interactions of Chandipura virus. *Archives of Virology*, *157*, 1949-1957. ISSN: 0304-8608.
92. Surolia, R., & Ghosh, P.C. (2012). Preparation and characterization of monensin loaded PLGA nanoparticles: in vitro anti-malarial activity against Plasmodium falciparum. *Journal of Biomedical Nanotechnology*, *8*, 1-10. ISSN: 550-7033 (print), 1550-7041 (web).
93. Bhat, P., Gnanasundram, S. V., Mani, P., Sarkar, D.P., & Das, S. (2012). Targeting ribosome assembly on the HCV RNA using a small RNA molecule. *RNA Biology*, *9*, 1-10. ISSN: 1555-8584 (online), 1547-6286 (print).
94. Kishore, D., Kundu, S., & Kayastha, A.M. (2012). Thermal, chemical and pH induced denaturation of a multimeric b-galactosidase reveals multiple unfolding pathways. *PLoS One*, *7*(11), e50380. ISSN: 1932-6203.
95. Arya, R., Sundd, M., & Kundu, S. (2012). Structural and functional aspects of acyl-coenzyme A binding proteins (ACBPs): a comprehensive review. *Journal of Proteins and Proteomics*, *3*, 61-71. ISSN: 0975-8151.
96. Jangir, D.K., Dey, S.K., Kundu, S., & Mehrotra, R. (2012). Assessment of amsacrine binding with DNA using UV-visible, circular dichroism and raman spectroscopic techniques. *Journal of Photochemistry and Photobiology B*, *114*, 38-43. ISSN: 1011-1344.
97. Mohibi, S., Gurumurthy, C.B., Nag, A., Mirza, S., Mian, Y., Quinn, M., Naramura, M., Band, H., & Band, V. (2012). Mammalian Alteration/deficiency in activation 3 is essential for mouse embryonic development and cell cycle progression. *Journal of Biological Chemistry*, *287*, 29442-29456. ISSN: 0021-9258 (print), 1083-351X (web).

98. Awasthi, M., Batra, J., & Kateriya, S. (2012). Disulphide bridges of phospholipase C of *chlamydomonasreinhardtii* modulates lipid interaction and dimer stability. *PLoS One*, 7(6), e39258. ISSN: 1932-6203.
99. Luck, M., Mathes, T., Bruun, S., Fudim, R., Hagedorn, R., Nguyen, T.M., Kateriya, S., Kennis, J.T., Hildebrandt, P., & Hegemann, P. (2012). A photochromic histidine kinase rhodopsin (HKR1) that is bimodally switched by UV and blue light. *Journal of Biological Chemistry*, 287, 40083-40090. ISSN: 0021-9258 (print), 1083-351X (web).
100. Kumar, S., Kateriya, S., Singh, V.S., Tanwar, M., Agarwal, S., Singh, H., Khurana, J.P., Amla, D.V., & Tripathi, A. K. (2012). Bacteriophytochrome controls carotenoid-independent response to photodynamic stress in a non-photosynthetic rhizobacterium, *Azospirillum brasilense* Sp7. *Scientific Reports*, 2, 872. ISSN: 2045- 2322.
101. Luck, M., Mathes, T., Bruun, S., Fudim, R., Hagedorn, R., Nguyen, T.M., Kateriya, S., Kennis, J.T., Hildebrandt, P., & Hegemann, P. (2012). A photochromic histidine kinase rhodopsin (HKR1) that is bimodally switched by UV and blue light. *Journal of Biological Chemistry*, 287, 40083–40090. ISSN: 0021-9258 (print), 1083-351X (web).
102. Penzkofer, A., Stierl, M., Hegemann, P., & Kateriya, S., (2012). Absorption and fluorescence characteristics of photo-activated adenylate cyclase nano-clusters from the amoeboflagellate *Naegleria gruberi* NEG-M strain. *Chemical Physics*, 392, 46-54. ISSN: 0301-0104.