

Department/ Centre/ Directorate: **Biochemistry**

(1.1.1) Curricula developed /adopted have relevance to the local/ national / regional/global developmental needs with learning objectives including program outcomes, program specific outcomes and course outcomes of all the program offered by the University

Upload description in not more than 500 words

Biochemical Techniques

This course inculcates an understanding of the biological methods and techniques used in research. The course prepares students for the challenges they encounter in their own lab classes of Masters Course and prepares them for putting their hands on bench during M.Phil/Ph.D programs. Additionally, this course integrates theory and practise to understand why and how each technique is used.

Fundamentals of Biochemistry

This course is necessary to introduce the basic understanding of biomolecules, their function and importance in the functioning of cell.

Enzymology

This course is intended mainly for students for taking degree courses which has a substantial biochemistry component. The large portion of this course may be of value to students who would opt for applied biology or medical laboratory sciences as their career.

Endocrinology

This is a very fundamental course for understanding the integration of developmental events, proliferation, growth, and differentiation, and the psychological or behavioral activities of metabolism, growth and development, tissue function, sleep, digestion, respiration, excretion, mood, stress, lactation, movement, reproduction and sensory perception caused by hormones.

Biochemistry of Chronic Diseases

This course acquaints students with various chronic diseases, their mechanism and possible preventive measures. The course is intended to develop an understanding of various neurological disorders, diabetes, heart and liver diseases that are on rise in developing world.

Biomolecules

In this course, the student recognizes the structures and functions of biomolecules (carbohydrates, lipids, amino acids, proteins, nucleotides, and nucleic acids) that form the basis of what we understand to be living organisms. Learn basic principles of structural and functional relationships of biological molecules. At the end of semester the student is able to understand and describe the relationship between chemistry and biology in a cell/organism.

Nutritional Biochemistry

The students acquire detailed knowledge regarding the biological basis of nutrition and the mechanisms by which diet can influence health. This includes a basic understanding of metabolism, physiology, molecular genetics and epidemiology. The student with this course in the programme is able to attain skills in developing research proposals for the study of human nutrition with concepts in nutritional sciences related to diet and disease.

Metabolism and Bioenergetics

The major objectives of this course are: 1. Know the reactions of the major catabolic and anabolic pathways of carbohydrate, lipid, and amino acid metabolism 2. Rationalize the transfer of energy in living systems on the molecular level. 3. Understand the signalling pathways of epinephrine, glucagon, and insulin. 4. Understand the regulation of metabolic pathways. **Outcome:** Students are able to explain/describe the synthesis of proteins, lipids, nucleic acids, and carbohydrates and their role in metabolic pathways. The basic concepts from the course are tied to that from other courses so that at the end of the semester the student is able to come up with a clear understanding of the physiological functioning of the cell/organism. At the end of the programme the student is able to apply and integrate molecular and metabolic knowledge of conditions and disease states for clinical problem solving (e.g., diabetes, carcinogenesis, mental illness, etc) and also develops a critical level of observational, analytical and problem solving skills to work on unknown mechanisms and suggest new hypotheses.

LAB COURSE –II

Objectives: Students use the biochemical techniques to plan and carry out experiments, like isolation, purification and identification of proteins, perform PAGE and SDS-PAGE protein electrophoresis, and enzyme assays (animal and plant sources). They generate and test hypotheses, analyze data using statistical methods where appropriate, and appreciate the limitations of conclusions drawn from experimental data. Trouble-shooting strategies are stressed upon in classes and labs. Assessment is done through collection, analysis, and presentation of data in course-associated lab experiments. **Outcomes:** Design and propose experimental approaches to solve biochemical questions.

Microbiology

Objectives: The course provides concepts in physiology, biochemistry, and genetics of microorganisms, including such topics as structure, function, diversity, metabolism, and the genetics of metabolic regulation besides microbial pathogenesis where disease-causing microorganisms, including aspects of the molecular basis for pathogenesis and topics as nutrient cycling, microbial diversity, and the biotechnological application of microorganisms to solve environmental problems are taught. **Outcomes:** Students graduating with a course in Microbiology will be able to: 1) define/explain within multiple microbiology disciplines the core theories and practices. 2) describe/explain the processes used by microorganisms for their replication, survival, and interaction with their environment, hosts, and host populations; 3) explain

the theoretical basis of the tools, technologies and methods common to microbiology; and 4) demonstrate practical skills in the use of tools, technologies and methods common to microbiology, and apply the scientific method and hypothesis testing in the design and execution of experiments.

Physiology and Clinical Biochemistry

Objectives: The course relates to describe the function of human body, common pathophysiological mechanisms, common diseases and the chemical and biochemical methods used in their study. The teaching mission for course is to provide a foundation of physiological principles and their application in real-life situations. **Outcomes:** By the completion of the program with this course, the graduate students are expected to: **1)** Demonstrate knowledge of organ systems function. **2)** Demonstrate knowledge of cellular function. **3)** Demonstrate the ability to integrate physiology from the cellular and molecular level to the organ system and organismic level of organization. **4)** Conduct and/or evaluate laboratory experiments in physiology.

Cell Biology

This course covers the basic and advanced concepts of Cell Biology. The student's understanding is tested by interacting with them in the class, asking questions, discussing advanced concepts and holding class tests.

Molecular Biology

This course discusses the concepts of transcription and its regulation in prokaryotes and eukaryotes.

Cancer Biology:

This course covers advanced concepts of the genetics and signaling that is involved in cancer.

Biotechnology

In this course, the students acquire the concepts of the applications of various techniques and the knowledge that we obtain in different areas like Cell Biology, Molecular Biology, Biochemical Techniques etc.

Signal Transduction

This is an open elective course in which students from different departments come. The students learn advanced concepts of various signaling pathways that occur in eukaryotic organisms.

Lab courses III and IV This practical course is about Molecular Biology techniques and experiments. We discuss the concepts of the practicals, teach the methodology and discuss the results with the students. We also discuss the applications of these techniques.

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**(1.1.2) Percentage of programs where syllabus revision was carried out during the last five years
Data Requirement for last five years (Academic years 2012 -2016) (9 %)**

Program/Course Code	Department	Name of the program/ course revised
BCH-05-DCE	Biochemistry	Biochemical Techniques
BCH-19-CR	Biochemistry	Lab Course III
BCH-20-DCE	Biochemistry	Biotechnology

(1.2.1)Percentage of new courses introduced of the total number of courses across all programs offered during the last five years

Data Requirement for last five years (Academic years 2012 -2016): 27.2 %

Name of the new course introduced	Department	Name of the programme
BCH-16-OE (Chronic diseases- Cancer and Diabetes)	Biochemistry	Masters in Biochemistry
BCH-17-CR (Physiology and Clinical Biochemistry)	Biochemistry	Masters in Biochemistry
BCH-22-GE (Metabolic Disorders)	Biochemistry	Masters in Biochemistry
BCH-24-OE (Diet, Physical Activity and Health)	Biochemistry	Masters in Biochemistry
BCH-25-CR (Designing and Drafting of Research Project)	Biochemistry	Masters in Biochemistry
BCH-26-CR (Journal Club)	Biochemistry	Masters in Biochemistry
BCH-31-GE (Biochemistry of Chronic Disease)	Biochemistry	Masters in Biochemistry
BCH-32-GE (Signal Transduction)	Biochemistry	Masters in Biochemistry
BCH-33-OE (Biochemical Laboratory Tests and Interpretations)	Biochemistry	Masters in Biochemistry

(1.2.2) Percentage of programs in which Choice Based Credit System (CBCS)/elective course system has been implemented

Data Requirement for last five years (Academic years 2012 -2016): 100%

Name of all programs adopting CBCS	Department	Name of all programs adopting elective course system
MSc Semester I	Biochemistry	Nutritional Biochemistry
MSc Semester I	Biochemistry	Biochemical Calculations
MSc Semester I	Biochemistry	Fundamentals of Biochemistry
MSc Semester II	Biochemistry	Protein Biochemistry
MSc Semester II	Biochemistry	Enzyme Immobilization
MSc Semester II	Biochemistry	Chronic Diseases- Cancer and Diabetes
MSc Semester III	Biochemistry	Metabolic Disorders
MSc Semester III	Biochemistry	Enzyme Regulation
MSc Semester III	Biochemistry	Diet, Physical activity and Health
MSc Semester IV	Biochemistry	Biochemistry of Chronic Diseases
MSc Semester IV	Biochemistry	Signal Transduction
MSc Semester IV	Biochemistry	Biochemical Laboratory Tests and Interpretations.

**(1.3.1) Institution integrates cross cutting issues relevant to Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum
Data Requirement for last five years (Academic years 2012 -2016)**

A description of courses which address Gender, Environment and Sustainability, Human Values and Professional Ethics	Department	The list of core courses
Integrated PhD, Biochemistry	Biochemistry	<p><u>Course work Paper II - Methodology</u> <i>The course includes following topics:</i> Research- need and importance, research ethics, originality of research, rationale, genesis and preliminary work of a research proposal, writing a manuscript, review and thesis. Importance of seminars and Journal club, collaborations in Research programs</p>

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(2.2.1) The institution assesses the learning levels of the students, after admission and organises special programs for advanced learners and slow learners

Upload a description of the initiative in not more than 500 words

It has been a usual practice in the Department that at the start of the course, the faculty mentors the students for various academic and research activities based on their capabilities and skills. Deficiency gaps in slow learners are bridged by providing them extra classes if need arises. The mentoring is directed towards the students being able to compete for different National and International examinations so that most of them are able to get into institutes of repute for their further studies. This gradually brings the slow learners to a level somewhat comparable to their advanced learner counterparts. Over the years a good number of students have benefitted through this approach.

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(2.3.1) Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

Upload description of student centric methods in not more than 500 words.

The Department has two full fledged core courses in Semester IV of the programme namely, Designing and Drafting a Research Project (BCH-25-CR15) and Journal Club (BCH-26-CR15). Students are required to write research proposals for grants under the mentorship of faculty supervisors generally based on their specializations. Students are also encouraged to work on the problem in departmental/outside labs to get some hands on experience regarding the proposed objectives. A final version is then presented in front of the faculty and students which is evaluated on the basis of content, presentation skills and a write up. Similarly the journal club course trains the students to speak before the audience and take queries on the related subject. These courses instill in the students the capability of independent and innovative thinking enabling them to face the audience with a knowledgeable and an upright attitude. The courses aim to provide the students with analytical and presentational skills which is achieved through skills lectures, classes and seminars, and small group teaching. The students participate in the journal clubs which guide the student through a detailed analysis of a research paper, a critical review of a paper in the literature and oral presentation of the analysis, exploration and oral presentation of contemporary curriculum based biochemical topics. This exercise trains them in problem-solving approach to experimental data. The course on project writing also deals with basic guidelines of scientific report writing. Both these modules prepare the graduate students for their future prospective dispositions *vis a vis* teaching and research.

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(2.3.2) Average percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources, etc.

Data Requirement for last five years (Academic years 2012 -2016)

Number of teachers using ICT (LMS, e-resources)	Department	Number of teachers on roll	ICT tools and resources available
2012: 7	Biochemistry	7	LCD Projectors, Interactive Board
2013: 7	Biochemistry	7	LCD Projectors, Interactive Board
2014: 5	Biochemistry	5	LCD Projectors, Interactive Board, e-tutorials
2015: 6	Biochemistry	6	LCD Projectors, Interactive Board, e-tutorials
2016: 6	Biochemistry	6	LCD Projectors, Interactive Board, e-tutorials

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(2.4.1) Average percentage of full time teachers against sanctioned posts during the last five years

Data Requirement for last five years (Academic years 2012 -2016)

Number of full time teachers	Department	Number of sanctioned posts
2012: 7 (87.5%)	Biochemistry	8
2013: 7 (87.5%)	Biochemistry	8
2014: 5 (62.5%)	Biochemistry	8
2015: 6 (75%)	Biochemistry	8
2016: 6 (75%)	Biochemistry	8

(2.4.3) Average teaching experience of full time teachers in number of years

Data Requirement for last five years (Academic years 2012 -2016)

Name of the teachers	Department	Number of years with teaching experiences
Prof Akbar Masood	Biochemistry	2012: 24 2013: 25 2014: 26 2015: 27 2016: 28
Dr. Rabia Hamid	Biochemistry	2012: 11+ (8.5 yrs adhoc) 2013: 12+ (8.5 yrs adhoc) 2014: 13+ (8.5 yrs adhoc) 2015: 14+ (8.5 yrs adhoc) 2016: 15 +(8.5 yrs adhoc)
Dr Shajrul Amin	Biochemistry	2012: 11+ (10 yrs adhoc) 2013: 12+ (10 yrs adhoc) 2014: 13+ (10 yrs adhoc) 2015: 14+ (10 yrs adhoc) 2016: 15 +(10 yrs adhoc)
Dr. Nazir A Dar	Biochemistry	2012: 6 2013: 7 2014: 8 2015: 9 2016:10
Dr. Shaida A Andrabi	Biochemistry	2012: 2 2013: 3 2014: 4 2015: 5 2016: 6
Dr. Mohd Ashraf Dar	Biochemistry	2016: 1

(2.4.4) Average percentage of full time 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 (Academic years 2012 -2016)

Number of full time teachers receiving awards from State, National, International level	Department	Total number of teachers
<p>Prof. Akbar Masood 1.-was awarded a Plaque of Honour by CSIR-Indian Institute of Toxicology and Research, Lucknow (2012) 2. -Inducted as Fellow, Association of advancement of Biodiversity Science, India (2014)</p>	Biochemistry	1
<p>Dr. Rabia Hamid 1. Awarded inclusion in Marquis 'Who's Who in the World', USA (2015). 2. A research paper from the lab, entitled 'Isolation and antiproliferative activity of <i>Lotus corniculatus</i> lectin towards human tumour cell lines was identified as a <i>Key Scientific Article contributing to excellence in biomedical research featured in 2014 edition of Global Medical Discovery Series</i> (2014). 3. 'Best presentation awardee' (Top 3) at the National Seminar on 'Climate Change, Environment and Sustainable Development' organized by National Environmental Science Academy and Department of Botany, Jamia Hamdard University, New Delhi (2013). 4. Recipient of the 'Scientist of the Year Award', 2012 conferred by Nat Env Sci Acad, at the Indian National Science Academy (INSA), headquarters New Delhi, India</p>	Biochemistry	1 1 1 1
<p>Dr. Nazir Ahmad Dar 1.American Cancer Society Fellowship awarded by International Union for Cancer Research</p>	Biochemistry	1
<p>Dr. Shaida Andrabi 1. DBT CREST Award, National level</p>	Biochemistry	1

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(2.6.2) Attainment of program outcomes, program specific outcomes and course outcomes are evaluated by the institution

Upload a description of the method of measuring attainment of POs , PSOs and COs in not more than 500 words and the level of attainment of POs , PSOs and COs.

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(2.6.3) Average pass percentage of students

Data Requirement for last five years (Academic years 2012 -2016)

Program Code	Department	Name of the program	Number of students appeared	Number of students passed	Pass percentage
MSBC	Biochemistry	MSc Biochemistry	2012: 31	31	100
MSBC	Biochemistry	MSc Biochemistry	2013: 34	33	97
MSBC	Biochemistry	MSc Biochemistry	2014: 34	33	97
MSBC	Biochemistry	MSc Biochemistry	2015: 34	33	97
			2016: 34	31	91

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(3.1.5) University has the following facilities

Data Requirement for last five years (Academic years 2012 - 2016)

Name of the facility	Department	Year of establishment	Videos/pictures
Cell Culture Facility	Biochemistry	2013	Picture (Appendix-I)
Gel Documentation facility	Biochemistry	2013	Picture (Appendix-I)
PCR thermocycler & qPCR	Biochemistry	2013	Picture (Appendix-I)
Deep freezers	Biochemistry	2012	Picture (Appendix-I)
Cold Centrifuge	Biochemistry	2012	Picture (Appendix-I)
Inverted Fluorescence Microscope	Biochemistry	2016	Picture (Appendix-I)
Library	Biochemistry	1985	Picture (Appendix-I)
Seminar room	Biochemistry	2012	
Classroom projectors	Biochemistry	2014	
State of art Research Labs (3)	Biochemistry	2016 (Under construction)	Picture (Appendix-I)

Documents: Videos and photographs geotagged

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(3.1.6) Percentage departments with UGC-SAP, CAS, DST-FIST, DBT,I CSSR and other similar recognitions by government agency

Data Requirement for last five years (Academic years 2012 - 2016)

Name of the Department	Name of the Scheme	Name of the funding agency	Year of Award	Funds provided	Duration : of award
Biochemistry	DST-FIST*	DST	2010-2015	52 lacs	5 yr
*See Appendix-I					

Upload of departmental recognition award letters on departmental website and send a hard copy and the scanned copies to office of the DIQA

(3.3.3) Number of awards for innovation won by institution/teachers/research scholars/students during the last five years

Data Requirement for last five years (Academic years 2012 - 2016)

Name of the Awardee	Department	Name of the Awarding Agency with contact details	Year of Award
Prof. Akbar Masood 1.-was awarded a Plaque of Honour by CSIR-Indian Institute of Toxicology and Research, Lucknow 2. -Inducted as Fellow, Association of advancement of Biodiversity Science, India	Biochemistry		2012
			2014
Dr. Rabia Hamid 1. Awarded inclusion in Marquis 'Who's Who in the World', USA (2015). 2. A research paper from the lab, entitled 'Isolation and antiproliferative activity of <i>Lotus corniculatus</i> lectin towards human tumour cell lines was identified as a <i>Key Scientific Article contributing to excellence in biomedical research featured in 2014 edition of Global Medical Discovery Series</i> (2014). 3. ' Best presentation awardee ' (Top 3) at the National Seminar on 'Climate Change, Environment and Sustainable Development' organized by National Environmental Science Academy and Department of Botany, Jamia Hamdard University, New Delhi (2013). 4. Recipient of the ' Scientist of the Year Award ', 2012 conferred by Nat Env Sci Acad, at the Indian National Science Academy (INSA) , headquarters New Delhi, India	Biochemistry	Marquis 'Who's Who, 430-Mountain Avenue, Suite 400 New Providence, NJ07974-USA	2015
	Biochemistry	Global Medical Discovery Ltd, Ottawa K4A 3X8, Ontario Canada	2014
	Biochemistry	National Environmental Science Academy, New Delhi	2013
	Biochemistry	National Environmental Science Academy, New Delhi	2012
Dr. Nazir Ahmad Dar	Biochemistry	American Cancer	

American Cancer Society Fellowship awarded by International Union for Cancer Research		Society	
Dr. Shaida Andrabi 1. DBT CREST Award, National level	Biochemistry	DBT	
Dr. Mohd Ashraf Dar Ramalingaswami Fellowship	Biochemistry	DBT	2015
Syed Qaifah Gillani (<i>Research Scholar</i>) (Newton Bhabha Fellowship)/ Indo UK Fellowship	Biochemistry	DST	2016

Documents: Upload of award letters

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(3.4.4) Number of Ph.D.s awarded per teacher during the last five years

Data Requirement for last five years (Academic years 2012 - 2016)

Name of the PhD scholar	Department	Name of the Department	Name of the guide/s	Year of registration of the scholar	Year of award of PhD
Mr. Hilal Ahmad Wani	Biochemistry		Prof. Sbhiya Majid & Dr. Shajrul Amin	2013	2016
Ms. Farrukh Rana Mufti	Biochemistry		Dr. Shajrul Amin & Dr. Sheikh Tasaduk Abdullah	2012	2015
Ms. Syed Rakashanda	Biochemistry		Dr. Shajrul Amin, Dr. Abid Hamid & Dr. A.G.Ahanger	2011	2014
Shaista Rafiq	Biochemistry		Dr Rabia Hamid/ Prof A Masood	2010	2014
Gulzar Ahmad	Biochemistry		Nazir Ahmad Akbar Masood	2008	2014
Beenish Iqbal	Biochemistry		Nazir Ahmad Dar Akbar Masood	2009	2015

(3.4.5) Number of research papers per teacher in the Journals notified on UGC website during the last five years**Data Requirement for last five years (Academic years 2012 - 2016)**

Title of paper	Department	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number
1. Prof. Akbar Masood						
Diminished expression of <i>MGMT</i> & <i>RASSF1A</i> genes in gastric cancer in ethnic population of Kashmir	Biochemistry	Bhat AA, Wani HA, Waza AA, Malik RA, Masood A, Jeelani S, Kadla S, Majid S	Biochemistry, UOK	J Gastrointest Oncol	2016	SSN: 2078-6891
Efficacy of Aqueous and Methanolic Extracts of <i>Rheum Spiciformis</i> against Pathogenic Bacterial and Fungal Strains.	Biochemistry	Dar KB, Bhat AH, Amin S, Anees S, Masood A, Zargar MI, Ganie SA	Biochemistry	J Clin Diagn Res	2016	ISSN, 0973709X
Inflammation: A Multidimensional Insight on Natural Anti-Inflammatory Therapeutic Compounds	Biochemistry	Dar KB, Bhat AH, Amin S, Masood A, Zargar MA, Ganie SA.	Biochemistry	Curr Med Chem	2016	ISSN: 0929-8673
Polymorphism of Metastasis Suppressor Genes <i>MKK4</i> and <i>NME1</i> in Kashmiri Patients with Breast Cancer.	Biochemistry	Iqbal B, Masood A, Lone MM, Lone AR, Dar NA	Biochemistry	Breast J	2016	ISSN: 1075-122X
Safety Evaluation of Unani Formulation: Capsule Shaqeeqa in Albino Wistar Rats	Biochemistry	Ghazanfar K, Ahmad Dar S, Akbar S, Nazir T, Hamdani M, Siddiqui KM, Kumar P, Masood A	Biochemistry	Scientifica (Cairo)	2016	ISSN: 2090-908X
Gracilone, a new sesquiterpene lactone from <i>Tanacetum gracile</i> (Tansies)	Biochemistry	Bhat G, Masood A, Ganai BA, Hamza B, Ganie S, Shafi T, Idris A, Shawl AS, Tantry MA	Biochemistry	Nat Prod Res	2016	ISSN, 1478- 6419
Potential risk of esophageal squamous cell carcinoma due to nucleotide excision repair XPA and XPC gene variants and their interaction among themselves and with environmental factors.	Biochemistry	Rafiq R, Bhat GA, Lone MM, Masood A, Dar NA	Biochemistry	Tumour Biol	2016	1010-4283
<i>Crataegus songarica</i>	Biochemistry	Ganie SA, Ali Dar T,	Biochemistry	Pharm Biol	2016	1388-0209

methanolic extract accelerates enzymatic status in kidney and heart tissue damage in albino rats and its in vitro cytotoxic activity.		Zargar S, Bhat AH, Dar KB, Masood A, Zargar MA				
Melatonin: A Potential Anti-Oxidant Therapeutic Agent for Mitochondrial Dysfunctions and Related Disorders.	Biochemsitry	Ganie SA, Dar TA, Bhat AH, Dar KB, Anees S, Zargar MA, Masood A	Biochemsitry	Rejuvenation Res	2016	1549-1684
Oxidative stress, mitochondrial dysfunction and neurodegenerative diseases; a mechanistic insight	Biochemsitry	Bhat AH, Dar KB, Anees S, Zargar MA, Masood A, Sofi MA, Ganie SA	Biochemsitry	Biomed Pharmacother	2015	0753-3322
Crocetenone, a new rotenoid with an unusual trans-fused ring system from <i>Iris crocea</i> .	Biochemsitry	Bhat GA, Mir F, Shawl AS, Ganai BA, Kamili AN, Masood A, Tantry MA	Biochemsitry	Nat Prod Commun	2015	1934-578X
Protein expression and methylation of MGMT, a DNA repair gene and their correlation with clinicopathological parameters in invasive ductal carcinoma of the breast.	Biochemsitry	Asiاف A, Ahmad ST, Malik AA, Aziz SA, Rasool Z, Masood A, Zargar MA	Biochemsitry	Tumour Biol	2015	1010-4283
Modulation of T-helper cytokines and inflammatory mediators by <i>Atropa acuminata</i> . Royle in adjuvant induced arthritic tissues.	Biochemsitry	Nisar A, Akhter N, Singh G, Masood A, Malik A, Banday B, Zargar MA	Biochemsitry	J Ethnopharmacol	2015	0378-8741
Purification and partial characterization of a fructose-binding lectin from the leaves of <i>Euphorbia helioscopia</i> .	Biochemsitry	Rafiq S, Qadir S, Wani IH, Ganie SA, Masood A, Hamid R	Biochemsitry	Pak J Pharm Sci	2014	1011-601X
Loss of expression and aberrant methylation of the CDH1 (E-cadherin) gene in breast cancer patients from Kashmir.	Biochemsitry	Asiاف A, Ahmad ST, Aziz SA, Malik AA, Rasool Z, Masood A, Zargar MA	Biochemsitry	Asian Pac J Cancer Prev	2014	2476762X
Antioxidant and hepatoprotective effects of <i>Crataegus songarica</i> methanol extract.	Biochemsitry	Ganie SA, Dar TA, Zargar B, Hamid R, Zargar O, Dar PA, Abeer SU, Masood A, Amin S, Zargar MA	Biochemsitry	J Environ Pathol Toxicol Oncol	2014	0731-8898.
In vitro antioxidant and cytotoxic activities of <i>Arnebia benthamii</i> (Wall ex.	Biochemsitry	Ganie SA, Dar TA, Hamid R, Zargar O, Ul Abeer S, Masood A,	Biochemsitry	Oxid Med Cell Longev	2014	1942-0900

G. Don): a critically endangered medicinal plant of Kashmir Valley.		Amin S, Zargar MA				
Scientific Validation of <i>Gentiana kurroo</i> Royle for Anti-Inflammatory and Immunomodulatory Potential.	Biochemsity	Mubashir K, Ghazanfar K, Ganai BA, Akbar S, Malik AH, Masood A.	Biochemsity	ISRN Inflamm	2014	2090-8695
CYP1A1 and CYP2E1 genotypes and risk of esophageal squamous cell carcinoma in a high-incidence region, Kashmir.	Biochemsity	Bhat GA, Shah IA, Makhdoomi MA, Iqbal B, Rafiq R, Nabi S, Masood A, Lone MM, Dar NA.	Biochemsity	Tumour Biol	2014	1010-4283
Evaluation of <i>Artemisia amygdalina</i> D. for Anti-Inflammatory and Immunomodulatory Potential.	Biochemsity	Mubashir K, Ganai BA, Ghazanfar K, Akbar S, Malik AH, Masood A.	Biochemsity	ISRN Inflamm	2013	2090-8695
Isolation and antiproliferative activity of <i>Lotus corniculatus</i> lectin towards human tumour cell lines.	Biochemsity	Rafiq S, Majeed R, Qazi AK, Ganai BA, Wani I, Rakhshanda S, Qurishi Y, Sharma PR, Hamid A, Masood A, Hamid R.	Biochemsity	Phytomedicine.	2013	09447113
Antiproliferative activity of <i>Lavatera cashmeriana</i> -protease inhibitors towards human cancer cells.	Biochemsity	Rakashanda S, Qazi AK, Majeed R, Rafiq S, Dar IM, Masood A, Hamid A, Amin S	Biochemsity	Asian Pac J Cancer Prev	2013	2476762X
Socioeconomic status and esophageal squamous cell carcinoma risk in Kashmir, India.	Biochemsity	Dar NA, Shah IA, Bhat GA, Makhdoomi MA, Iqbal B, Rafiq R, Nisar I, Bhat AB, Nabi S, Masood A, Shah SA, Lone MM, Zargar SA, Islami F, Boffetta P.	Biochemsity	Cancer Sci.	2013	1347-9032
Variation in bioactive principles of <i>Artemisia amygdalina</i> Decne. in wild and tissue culture regenerants.	Biochemsity	Rasool R, Ganai BA, Akbar S, Kamili AN, Dar MY, Masood A	Biochemsity	Pak J Pharm Sci	2013	1011-601X
Comparison of hematological parameters in untreated and treated subclinical hypothyroidism and primary hypothyroidism patients.	Biochemsity	Bashir H, Bhat MH, Farooq R, Majid S, Shoib S, Hamid R, Mattoo AA, Rashid T, Bhat AA, Wani HA, Masood A.	Biochemsity	Med J Islam Repub Iran	2012	2251-6840
Hepatoprotective and antioxidant activity of rhizome of <i>Podophyllum hexandrum</i> against carbon tetra chloride induced hepatotoxicity in rats.	Biochemsity	Ganie SA, Zargar BA, Masood A, Zargar MA.	Biochemsity	Biomed Environ Sci.	2013	0895-3988

Free radical scavenging activity of <i>Elsholtzia densa</i> .	Biochemistry	Khan M, Ganie SA, Wani IH, Ganai BA, Masood A, Zargar MA, Malik AH, Hamid R.	Biochemistry	J Acupunct Meridian Stud	2012	20052901
Esophageal cancer: associated factors with special reference to the Kashmir Valley.	Biochemistry	Rasool S, A Ganai B, Syed Sameer A, Masood A	Biochemistry	Tumori	2012	0300-8916
<i>Podophyllum hexandrum</i> aqueous extract as a potential free radical scavenger.	Biochemistry	Ganie SA, Amin S, Hamid R, Hamid A, Majeed R, Qurishi Y, Zargar BA, Masood A, Zargar MA	Biochemistry	Redox Rep	2012	17432928
Polymorphic variation in glutathione-S-transferase genes and risk of chronic myeloid leukaemia in the Kashmiri population.	Biochemistry	Bhat G, Bhat A, Wani A, Sadiq N, Jeelani S, Kaur R, Masood A, Ganai B	Biochemistry	Asian Pac J Cancer Prev	2012	2476762X
Polymorphisms in the 3'UTR of the human leptin gene and their role in hypertension.	Biochemistry	Akhter Q, Masood A, Ashraf R, Majid S, Rasool S, Khan T, Rashid T, Sameer AS, Ganai BA.	Biochemistry	Mol Med Rep	2012	17912997
2. Dr. Rabia Hamid						
Free Radical Scavenging and Cytotoxic Activity of Seed Extracts of <i>Podophyllum hexandrum</i> .	Department of Biochemistry, UOK	Ovais Zargar, Rabia Hamid , K. Bashir Dar, A. H. Bhat, M. Afzal Zargar, A. Masood, A. G. Showkat	Department of Biochemistry, UoK	Phytotherapie (Springer)	2016	1624-8597 (Print) 1765-2847 (Online)
Antimicrobial and antioxidant activity of methanol extracts of <i>Arnebia benthamii</i> (Wall ex. G. Don) Johnston—a critically endangered medicinal plant of North western Himalaya.	Department of Biochemistry, UOK & CORD, UOK	Nowsheen Shameem, Azra N. Kamili, Javid A. Parray, Rabia Hamid , and Suhaib A. Bandh	Department of Biochemistry, UoK	Journal of Analytical Science and Technology (Springer)	2015	2093-3371
Polymorphism of the XRCC3 gene and risk of gastric cancer in Kashmiri population: a case control study.	Department of Biochemistry, UOK & GMC Srinagar	Haamid Bashir, Rabia Hamid Rabia Farooq, Nida sadiq, Sabhiya Majid	Department of Biochemistry, UoK	European Journal of Cancer Prevention	2015	Print: 0959-8278 Online: 1473-5709
<u>Phytochemical Screening, Physicochemical Properties Acute Toxicity Testing and Screening of Hypoglycaemic Activity of Extracts of <i>Eremurus Himalaicus</i> Baker in Normoglycaemic Wistar Strain Albino Rats</u>	Department of Biochemistry	Ahlam Mushtaq, Seema Akbar, Mohammad A. Zargar, Adil F. Wali, Akhtar H. Malik, Mohammad Y. Dar, Rabia Hamid , Bashir A. Ganai.	Department of Biochemistry, UoK	Biomed Research International: Therapeutic Potential of Natural Pharmacologic Agents in the Treatment of Human Diseases	2014	2314-6133 (Print) 2314-6141 (Online)
Mechanistic insights into mode of action of potent natural antagonists of BACE-1 for checking Alzheimer's plaque pathology.	Department of Biochemistry, UOK & SLS, JNU, New Delhi	Jaspreet K Dhanjal, Sukriti Goyal, Sudhanshu Sharma, Rabia Hamid , Abhinav Grover	Department of Biochemistry, UoK	Biochemical and Biophysical Research Communications	2014	0006-291X

Development of novel dual inhibitors against Alzheimer's using fragment-based QSAR and molecular docking approaches.	Department of Biochemistry, UOK & SLS, JNU, New Delhi	Manisha Goyal, Jaspreet Kaur Dhanjal, Sukriti Goyal, Chetna Tyagi, Rabia Hamid , Abhinav Grover	Department of Biochemistry, UoK	Biomed Research International: Integrative Genomics and Computational Systems Medicine:)	2014	2314-6133 (Print) 2314-6141 (Online)
In vitro antioxidant and cytotoxic activities of <i>Arnebia benthamii</i> (Wallex.G. Don)-Acritically endangered medicinal plant of Kashmir valley.	Department of Biochemistry, UOK	Showkat Ahmad Ganie, Tanveer Ali Dar, Ovais Zargar, Shayak A Rasool, Akbar Masood, Rabia Hamid , Shajrul Amin, and Mohammad Afzal Zargar	Department of Biochemistry, UoK	Oxidative Medicine and Cellular Longevity	2014	1942-0900 (Print) 1942-0994 (Online)
Antiproliferative activity of <i>Lotus corniculatus</i> lectin towards Human tumor cell lines.	Department of Biochemistry, UOK	Shaista Rafiq, Rabiya Majeed, Asif Khursheed, Ishfak Wani, Syed Rakhshanda, Yesrib Qureshi, P.R. Sharma, Abid Hamid, Akbar Masood and Rabia Hamid* .	Department of Biochemistry, UoK	Phytomedicine	2013	0944-7113
Evaluation of Antimicrobial Activity of a Lectin Isolated and Purified from <i>Indigofera heterantha</i>	Department of Biochemistry, UOK	Sakeena, I. H. Wani, S. Rafiq, Masood, A., and Hamid, R*	Department of Biochemistry, UoK	Advances in Bioscience and Biotechnology	2013	2156-8456 (Print) 2156-8502 (Online)
<i>In Vitro</i> Antimicrobial Potentiality of <i>Elsholtzia Densa</i> against Pathogenic Bacterial and Fungal Strains.	Department of Biochemistry, UOK	Misba Khan, Showkat Ahmad Ganie, Ishfak H. Wani, Bashir A. Ganai, Akhter H. Malik, M Afzal Zargar, Akbar Masood, Rabia Hamid*	Department of Biochemistry, UoK	Journal of Pure and Applied Microbiology	2013	0973-7510
Lectins: Proteins with Diverse Applications. ISSN:	Department of Biochemistry, UOK	Rabia Hamid* , Akbar Masood, Ishfak H.Wani, Shaista Rafiq	Department of Biochemistry, UoK	Journal of Applied Pharmaceutica I Science	2013	2231-3354
Comparison of hematological parameters in untreated and treated Subclinical hypothyroidism and Primary hypothyroidism Patients	Department of Biochemistry, UOK	Haamid B, Bhat MH, Rabia F, Sabhiya M, Sheikh S, Rabia H , Arshid AM, Tabassum R, Akbar M.	Department of Biochemistry, UoK	Medical Journal of the Islamic Republic of Iran	2012	ISSN: 1016-1430
Radical scavenging and antibacterial activity of <i>Arnebia benthamii</i> methanol extract.	Department of Biochemistry, UOK	S. A. Ganie, A. Jan, S. Muzaffar, Rabia Hamid , B. A. Wani and M. A. Zargar.	Department of Biochemistry, UoK	Asian Pacific Journal of Medicine (Elsevier).	2012	1995-7645
<i>Podophyllum hexandrum</i> aqueous extract as a potential free radical scavenger	Department of Biochemistry, UOK	S.A. Ganie, Rabia Hamid , S. Amin, Abid Hamid, A. Masood, M. A. Zargar	Department of Biochemistry, UoK	Redox Report	2012	1351-0002
3. Dr Shajrul Amin Preparation and In Vitro Characterization of Albumin Nanoparticles Encapsulating an Anti-Tuberculosis Drug- Levofloxacin	Biochemistry	Rather, Muzafar Ahmad; Amin, Shajrul ; Maqbool, Mubashir; Bhat, Zubair Shanib; Gupta, Prem Naryan; Ahmad, Zahoor	Biochemistry	Advanced Science, Engineering and Medicine	2016	<u>2164-6627</u> (Print); <u>2164-6635</u> (Online)
Inflammation: A multidimensional insight with advanced focus on natural anti-inflammatory therapeutic compounds.	Biochemistry	Khalid Bashir Dar, Aashiq Hussain Bhat, Shajrul Amin, Akbar Masood, Mohd Afzal Zargar and Showkat Ahmad Ganie	Biochemistry	Current Medicinal Chemistry2016	2016	0929-8673
A comprehensive review on the phytochemical and pharmacological aspects of <i>Podophyllum hexandrum</i> : a high value medicinal plant	Biochemistry	Muzafar Ahmad Rather, Shajrul Amin	Biochemistry	Adv. Biomed. Pharma.	2016	2313-7479

<u>Efficacy of Aqueous and Methanolic Extracts of Rheum Spiciformis against Pathogenic Bacterial and Fungal Strains</u>	Biochemistry	Khalid Bashir Dar, Aashiq Hussain Bhat, Shajrul Amin, Suhail Anees, Akbar Masood, Mohammed Iqbal Zargar, Showkat Ahmad Ganie	Biochemistry	Journal of Clinical and Diagnostic Research	2016	0973-709X
	Biochemistry		Biochemistry		2015	
Plant - derived protease inhibitors LC-pi (<i>Lavatera cashmeriana</i>) inhibit human lung cancer cell proliferation in vitro.	Biochemistry	Syed Rakashanda, Rabiya Majeed, Asif K Qazi, P Sharma, Abid Hamid and Shajrul Amin	Biochemistry	Nutrition and cancer	2015	0163-5581 (Print), 1532-7914 (Online).
Association between GSTM1 and GSTT1 polymorphisms and esophageal squamous cell carcinoma: results from a case-control study in Kashmir, India	Biochemistry	Muzamil Ashraf Makhdoomi, Idrees Ayoub Shah, Gulzar Ahmad Bhat, Shajrul Amin , MohdMaqbool Lone, Farhad Islami, Nazir Dar	Biochemistry	Tumor Biol.	2015	1010-4283 (Print), 1423-0380(Online).
TCF4 may act as a tumour suppressor gene in colorectal carcinogenesis. World Journal of Pharmaceutical Research.	Biochemistry	Rabia Farooq, Shajrul Amin , Hamid Bashir, Bashir Ahmad Ganaie and Sabiya Majid	Biochemistry	Journal of Pharmaceutical Research.	2014	2277-7105
<u>Oxidative stress mediated Ca²⁺ release manifests endoplasmicreticulum stress leading to unfolded protein response in UV-B irradiated human skin cells</u>	Biochemistry	Mufti R. Farrukh, Ashraf UINissar, AfnanQuadri, Rafiq A. Rather, Love Sharma, Shajrul Amin, Kaiser Peerzada, Parduman R. Sharma, Sheikh A. Tasaduq	Biochemistry	Journal of Dermatol Sci.	2014	0923-1811
<u>Antioxidant and hepatoprotective effects of Crataegus songericam ethanol extract.</u>	Biochemistry	Showkat Ganie, Tanveer Dar, Bilal Zargar, Rabia Hamid, Ovais Zargar, Parvaiz Dar, Shayaq Abeer Akbar Masood, Shajrul Aminand Mohd Afzal Zargar	Biochemistry	Journal of Environmental Pathology Toxicology and Oncology	2014	2162-6537
<u>In vitro antioxidant and cytotoxic activities of Arnebiabenthamii (Wall ex. G.Don): A critically endangered medicinal plant of Kashmir Valley</u>	Biochemistry	Showkat Ahmad Ganie, TanveerAli Dar, Rabia Hamid, Ovais Zargar, Shayaqul Abeer, Akbar Masood, Shajrul Amin, and Mohammad Afzal Zargar	Biochemistry	Oxidative Medicine and Cellular Longevity	2014	1942-0900
Proteases as targets in anticancer therapy using their inhibitors.	Biochemistry	Syed Rakashanda and Shajrul Amin	Biochemistry	J. Life Sci.	2013	0975-1270
Role of haematological parameters in diagnosis and prognosis of gastric carcinoma in Kashmir.	Biochemistry	Rabia Farooq, Arif Akbar Bhat, Hilal Ahmad Wani, Hamid Bashir, Shajrul Amin, Bashir Ahmad Gania, and SabhiyaMajid	Biochemistry	International Research Journal of Pharmacy	2013	2230- 8407
Antiproliferative activity of LC-pis (<i>Lavateracashmeriana</i> - protease inhibitors) towards human cancer cells	Biochemistry	Syed Rakashanda, AsifKhurshidQazi, RabiyaMajeed, ShaistaRafiq, Ishaq M Dar, Akbar Masood, Abid Hamid and Shajrul Amin	Biochemistry	Asian Pacific Journal of Cancer Prevention	2013	1513-7368
Phytochemical Screening, antimicrobial and antioxidant efficacy of different extracts of <i>Rumex dentatus</i> L.- A locally used medicinal herb of Kashmir Himalayas	Biochemistry	Humeera Nisa, Azra N. Kamili, Suhaib A. Bandh, Shajrul Amin, Bashir A. Lone and Javid A. Parray	Biochemistry	Asian Pac. J. Trop. Dis	2013	2222-1808

Methylation profile of promoter region of p16 gene in colorectal cancer patients of Kashmir Valley.	Biochemistry	H.A.Wani, M.A. Beigh, S. Amin, A.A. Bhat, S.A. Bhat, H. Khan, A.A.Mattoo, M. Showkat and S. Majid	Biochemistry	Journal of Biological Regulators & Homeostatic Agents	2013	0393-974X
Trypsin inhibitors from <i>Lavatera cashmeriana</i> Camb.seeds: Isolation, characterization and invitro cytotoxicity activity	Biochemistry	Syed Rakashanda, Syed Mubashir, Yasrib Qureshi, Akbar Masood, Abid Hamid and Shajrul Amin	Biochemistry	International Journal of Pharmaceutical Science Invention	2013	2319-670X
Distribution of P16 Promoter Hypermethylation in Male/female Colorectal Cancer Patients of Kashmir Valley.	Biochemistry	H.A.Wani, A.A. Bhat, A.A.Mattoo, H. Khan, S. Amin, S.A. Bhat, N.A.Naikoo, T.Rasheed, A.Masood, S. Maid	Biochemistry	International Journal of Engineering Science Invention	2013	2319-6726, EISSN: 2319-6734
Antibacterial activity of a trypsin-chymotrypsin-elastase inhibitor isolated from <i>Lavatera cashmeriana</i> Camb.seeds.	Biochemistry	S. Rakashanda, M. Ishaq, A. Masood and S. Amin	Biochemistry	The Journal of animal and plant Sciences	2012	1018-7081
Role of proteases in cancer - A review	Biochemistry	Syed Rakhshanda, Farukh Rana, Shaista Rafiq, Akbar Masood and Shajrul Amin	Biochemistry	Biotechnology and Molecular Biology Review	2012	1538-2273
Kinetic studies on β -galactosidase isolated from apricots (<i>Prunus armeniaca kaisa</i>)	Biochemistry	Sadaf Gulzar and Shajrul Amin	Biochemistry	American Journal of Plant Sciences	2012	2158-2742 EISSN: 2158-2750
Antibacterial and antifungal activity of <i>Thymus serpyllum</i>	Biochemistry	R. Farrukh, M. A. Zargar, A. Akhtar, S.A. Tasduq, S. Surjeet, U. A. Nissar, S. Rakhshanda, A. Masood, S.A. Ganie and A. Shajrul	Biochemistry	Botany Research International	2012	1995-8951
<u>Podophyllum hexandrum</u> aqueous extract as a potential free radical scavenger	Biochemistry	Showkat Ahmad Ganie, Shajru I Amin, Rabia Hamid, Abid Hamid, Rabiya Majeed, Yasrib Qurishi, Bilal A. Zargar, Akbar Masood, Mohammad Afzal Zargar	Biochemistry	Redox report	2012	1351-0002 Online ISSN: 1743-2928
4. Dr. Nazir Ahmad Dar Polymorphism of Metastasis Suppressor Genes MKK4 and NME1 in Kashmiri Patients with Breast Cancer.		Iqbal B, Masood A, Lone MM, Lone AR, Dar NA.	Biochemistry	Nutrition and cancer	2016	0163-5581
Genotypes of CYP1A1, SULT1A1 and SULT1A2 and risk of squamous cell carcinoma of esophagus: outcome of a case-control study from Kashmir, India.		Shah IA, Bhat GA, Mehta P, Lone MM, Dar NA		Dis Esophagus.	2016	1442-2050
Potential risk of esophageal squamous cell carcinoma due to nucleotide excision repair XPA and XPC gene variants and their interaction among themselves and with environmental factors.		Rafiq R, Bhat GA, Lone MM, Masood A, Dar NA.		Tumour Biol.	2016	1010-4283
Second hand Smoking and the Risk of Esophageal Squamous Cell Carcinoma in a High Incidence Region, Kashmir, India: A Case-control-observational Study.		Rafiq R, Shah IA, Bhat GA, Lone MM, Islami F, Boffetta P, Dar NA		Medicine (Baltimore).	2016	0025-7974

Narghile Smoking is Associated With the Development of Oral Cancer at Early Age.		Dar NA		J Evid Based Dent Pract	2015	1532-3382
Leu432Val Polymorphism of CYP1B1 is Not Associated with Squamous Cell Carcinoma of Esophagus a Case Control Study from Kashmir, India		Shah IA, Mehta P, Lone MM, Dar NA .p		Asian Pac J Cancer Prev.	2015	1513-7368
Family history of cancer and the risk of squamous cell carcinoma of oesophagus: a case-control study in Kashmir, India.		Bhat GA, Shah IA, Rafiq R, Nabi S, Iqbal B, Lone MM, Islami F, Boffetta P, Dar NA		British Journal of Cancer	2015	00070920
Impediments in foreign collaboration and conducting a high throughput molecular epidemiology research in India, an assessment from a feasibility study.		Iqbal B, Shah IA, Bhat GA, Bhat AB, Rafiq R, Nabi S, Malekhzadeh R, Abnet CC, Boffetta P, Jenab M, Dar NA		Springer Plus	2015	2193-1801
Association between GSTM1 and GSTT1 polymorphisms and esophageal squamous cell carcinoma: results from a case-control study in Kashmir, India.		Makhdoomi MA, Shah IA, Bhat GA, Amin S, Lone MM, Islami F, Dar NA		Tumour Biol/	2015	1010-4283
Salt tea consumption and esophageal cancer: a possible role of alkaline beverages in esophageal carcinogenesis.		Dar NA , Bhat GA, Shah IA, Iqbal B, Rafiq R, Nabi S, Lone MM, Islami F, Boffetta P.		International Journal of Cancer	2015	1097-0215
CYP1A1 and CYP2E1 genotypes and risk of esophageal squamous cell carcinoma in a high-incidence region, Kashmir.		Bhat GA, Shah IA, Makhdoomi MA, Iqbal B, Rafiq R, Nabi S, Masood A, Lone MM, Dar NA .		Tumour Biol	2014	1010-4283
Chromosome 18p11.2 harbors susceptibility marker: D18S452, for bipolar affective disorder.		Andrabi M, Hussain A, Rashid F, Nissar SO, Shah IA, Rather YH, Ahangar WH, Dar NA		Indian J Psychiatry	2013	0019-5545,
Contact with animals and risk of oesophageal squamous cell carcinoma: outcome of a case-control study from Kashmir, a high-risk region		Dar NA , Islami F, Bhat GA, Shah IA, Makhdoomi MA, Iqbal B, Rafiq R, Lone MM, Boffetta P		Occup Environ Med.	2014	1351-0711
Poor oral hygiene and risk of esophageal squamous cell carcinoma in Kashmir.		Dar NA , Islami F, Bhat GA, Shah IA, Makhdoomi MA, Iqbal B, Rafiq R, Lone MM, Abnet CC, Boffetta P.		British Journal of Cancer	2013	00070920
Socioeconomic status and esophageal squamous cell carcinoma risk in Kashmir, India.		Dar NA , Shah IA, Bhat GA, Makhdoomi MA, Iqbal B, Rafiq R, Nisar I, Bhat AB, Nabi S, Masood A,		Cancer Sci.	2013	1349-7006
Hookah smoking, nass chewing, and oesophageal squamous cell carcinoma in Kashmir, India.		Dar NA, Bhat GA, Shah IA, Iqbal B, Makhdoomi MA, Nisar I, Rafiq R, Iqbal ST, Bhat AB, Nabi S, Shah SA, Shafi R, Masood A, Lone MM, Zargar SA, Najar MS, Islami F, Boffetta P		Br J Cancer	2012	00070920
Epidermal growth factor receptor (EGFR) mutations and expression in squamous cell carcinoma of the esophagus in central Asia.		Abedi-Ardekani B, Dar NA, Mir MM, Zargar SA, Lone MM, Martel-Planche G, Villar S, Mounawar M, Saidi F, Malekhzadeh R, Hainaut		BMC Cance	2012	1471-2407

		P				
A novel p16(INK4A) mutation associated with esophageal squamous cell carcinoma in a high risk population.		Qureshi MA, Jan N, Dar NA, Hussain M, Andrabi KI		Biomarkers.	2012	1354-750X
5. Dr. Shaida Andrabi						
Polyoma small T antigen triggers cell death via mitotic catastrophe.	Biochemistry	Arun Fernando*, <u>Shaida Andrabi*</u> [¶] , Onur Cizmecioglu, Cailei Zhu, David Livingston, Brian Schaffhausen, Jonathan Higgins and Thomas Roberts. (Equal first author; also co-corresponding author)	Biochemistry	Oncogene	2015 May 7;34 (19):2 483- 92	ISSN: 0950-9232
Polyoma small T upregulates the expression of cytoskeletal proteins in mammalian cells during mitosis	Biochemistry	Irfana Reshi, Zarka Sarwar, Sameer Ahmed Bhat, Syed Qaaifah Gillani, Misbah Shah, Khalid Majid Fazili, Shaida Andrabi	Biochemistry	International Journal of Biological Macromolecules	2018; Feb;1 07 (Pt B): 2279- 2284	ISSN: 0141-8130

(3.4.6) Number of books and chapters in edited volumes/books published, and papers in national/international conference-proceedings per teacher during the last five years

Data Requirement for last five years (Academic years 2012 - 2016)

Name of the teacher: Title of the paper	Department	Title of the book published: Name of the author/s: Title of the proceedings of the conference	Name of the publisher: National /International	National / international : ISBN/ISSN number of the proceeding	Year of publication:
I. Dr. Rabia Hamid 1. Rabia Hamid Research Prospects in Biotechnology in Higher Education Scenario. pp 316-329 (Book Chapter)	Department of Biochemistry, UOK	Higher Education in India: (Kumar and Kumar eds.)	Atlantic Publishers, India	National ISBN: 978-81-269-1840-9	2013
2. Rabia Hamid Hypothyroidism in Women. pp. 23-32 (Book chapter)	Department of Biochemistry, UOK	Sustainable Development of Women-Issues and Problems, (D. Pulla Rao Ed.)	Mangalam Publications, Delhi	978-93-81142-88-2	2013
3. Rabia Hamid Understanding Carbohydrate Metabolism Vol. I (Book)	Department of Biochemistry, UOK	Understanding Carbohydrate Metabolism Vol. I	Kashmir Book Trust, Publishers & Distributors, JK India	National ISBN: 9788190864244	2012
4. Rabia Hamid Understanding Carbohydrate Metabolism Vol. II (Book)	Department of Biochemistry, UOK	Understanding Carbohydrate Metabolism Vol. II	Kashmir Book Trust, Publishers & Distributors, JK India	National ISBN: 9788190864251	2012
5. Rabia Hamid A Handbook of Lectins - Structure and Biomedical Applications (Book)	Department of Biochemistry, UOK	A Handbook of Lectins - Structure and Biomedical Applications	Lambert Academic Publishing House, Germany	International ISBN: 978-3-8473-4275-5	2012
II. Dr. Shajrul Amin					
Iram Ashaq, Amin Shajrul, Masood Akbar, Fouzia Rashid Protein Misfolding: In perspective of loss and gain of function.	Biochemistry	<u>Proteostasis and Chaperone Surveillance</u>	Springer	Print ISBN: 978-81-322-2466-2 Online ISBN: 978-81-322-2467-9	2015

**3.7.1 Number of collaborative activities for research, faculty exchange, student exchange per year
Data Requirement for last five years (Academic years 2012 - 2016)**

Title of the collaborative activity	Department	Name of the collaborating agency with contact details	Source of financial support	Year of collaboration	Duration	Nature of the activity
Dr. Rabia Hamid 1. To study the pharmacological effects of various plant extracts in the management of Alzheimer's disease	Biochemistry	Prof. B A Ganai, CORD, University of Kashmir	University of Kashmir	2015	3 yrs	PhD Supervision
2. <i>In vivo</i> study of antioxidant and anticancer activities of <i>Elsholtzia densa</i>	Biochemistry	Dr. S.A Ganie	DBT, India	2014	3 yrs	Research Project
3. Development of novel dual inhibitors against Alzheimer's using fragment-based QSAR and molecular docking approaches. (<i>BioMed Research International 2014, 1-12</i>)	Biochemistry	Dr. Abhinav Grover School Biotechnology, JNU New Delhi	JNU and Science and Engineering Research Board, Department of Science and Technology, Government of India.	2013	2 yrs	Research Publication
4. Mechanistic insights into mode of action of potent natural antagonists of BACE-1 for checking Alzheimer's plaque pathology. (<i>Biochemical and Biophysical Research Communications 2014, 443(3):1054-1059</i>)	Biochemistry	Dr. Abhinav Grover School of Biotechnology, JNU New Delhi	JNU, UGC and Science and Engineering Research Board, Department of Science and Technology, Government of India.	2013	2 yrs	Research Publication
5. Antiproliferative activity of <i>Lotus corniculatus</i> lectin towards	Biochemistry	Dr. Abid Hamid, Scientist E, IIIM Jammu	University of Kashmir/IIIM Jammu	2012	2 yrs	Research Publication

Human tumor cell lines. (Phytomedicine 2013, 21: 30–38)						
6. Comparison of hematological parameters in untreated and treated Subclinical hypothyroidism and Primary hypothyroidism Patients[<i>Medical Journal of the Islamic Republic of Iran</i> 26 (4): 172-178]	Biochemistry	Dr Sabhiya Majid	GMC, Srinagar	2012	2 yrs	Research Publication
7. Antimicrobial and antioxidant activity of methanol extracts of <i>Arnebia benthamii</i> (Wall ex. G. Don) Johnston—a critically endangered medicinal plant of North western Himalaya.	Biochemistry	Prof A.N Kamili, COD, University of Kashmir	University of Kashmir	2012	2 yrs	MPhil Supervision/ Research Publication
8. Polymorphism of the XRCC3 gene and risk of gastric cancer in Kashmiri population: a case control study	Biochemistry	Prof. Sabhiya Majid, Head Deptt of Biochemistry, GMC Srinagar	University of Kashmir/GMC Srinagar	2011	2 yrs	MPhil Supervision/ Research Publication

Department/ Centre/ Directorate **Biochemistry**

(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

Data Requirement for last five years (Academic years 2012 - 2016)

Title of the linkage	Department	Name of the partnering institution/ industry/ research lab with contact details	Year of commencement	Duration (From-to)	Duration (From-to)	Nature of linkage
PhD Programmes	Biochemistry	1. IIIM, Jammu and Srinagar 2. GMC, Srinagar 3. SKIIMS, Srinagar 4. Deptt. Of Biotechnology, UoK, 5. CORD, UoK	2012	2012	2016	Sharing of Research Facilities

Documents: Upload the linkages with institutions/ industries

Department/ Centre/ Directorate Biochemistry

(4.1.2) The institution has adequate facilities for sports, games (indoor, outdoor, gymnasium, yoga centre etc.,) and cultural activities

Upload a description of adequate facilities for sports, games and cultural activities which include specification about area/size, year of establishment and user rate.

Department/ Centre/ Directorate **Biochemistry**

4.1.3 Percentage of classrooms and seminar halls with ICT-enabled facilities such as smart class, LMS, etc.

Data Requirement for last five years (Academic years 2012 - 2016)

Number of classrooms with LCD facilities	Department	Number of classrooms with wi-fi/ Lan facilities	Number of seminar halls with ICT facilities
2012: 2	Biochemistry	2012: 1	2012: 1
2013: 2	Biochemistry	2013: 1	2013: 1
2014:2	Biochemistry	2014: 1	2014: 1
2014: 2	Biochemistry	2014: 1	2014: 1
2015: 2	Biochemistry	2015: 1	2015: 1
2016: 2	Biochemistry	2016: 1	2016: 1

(5.2.1) Average percentage of placement of outgoing students during the last five years

Data Requirement for last five years (Academic years 2012 - 2016)

Name of the employer with contact details	Department	Number of students placed
School Education Department, J&K	Biochemistry	3-4 on an average (2012-16)
Higher Education Department, J&K	Biochemistry	1-2 on an average (2012-16)
University of Nebraska Medical Center Nebraska, OMAHA. USA	Biochemistry	1
Advanced Cancer Research Treatment and Education Centre, Mumbai	Biochemistry	1
Beatson Cancer Centre, University of Glasgow, Scotland, UK	Biochemistry	1
HHMI Institute for Neurobiology, University of Oregon Eugene city USA	Biochemistry	1
Centre for cellular and Molecular Biology, Hyderabad, India	Biochemistry	1
INSERM Institut Albert Bonniot, U823, Site Santé-BP 170, 38042 Grenoble Cedex 9, France	Biochemistry	1
Structural Biology Lab National Institute of Immunology New Delhi	Biochemistry	1
IIT Madras, T.N, India	Biochemistry	1

Document :Upload annual report of placement cell

Note: Department does not have a placement cell to keep a record of all pass outs

Department/ Centre/ Directorate **Biochemistry**

(5.2.2) Percentage of student progression to higher education (previous graduating batch)

Data Requirement for last five years (Academic years 2012 - 2016)

UG to PG:	Department	PG to MPhil:	PG to PhD:	MPhil to PhD:	PhD to Postdoctoral:
	Biochemistry	2012: 2013: 9 2014: 11 2015: 4 2016: 0	2012: 2013: 2014: 2015: 2016: 3	2012: 2013: 14 2014: 11 2015: 8 2016: 0	2012: 1 2013: 2 2014: 1 2015: 1 2016: 1

Document: Upload document from Student/alumni database

(5.2.3) Average percentage of students qualifying in state/national/ international level examinations during the last five years (eg: NET/SLET/GATE/GMAT/CAT/ GRE/TOEFL/Civil Services/State government examinations)

Data Requirement for last five years (Academic years 2012 - 2016)

NET	SLET	GATE	GMAT E	CAT	GRE	TOEFL	Civil Services	State government examinations
2012: 5 2013: 5 2014: 7 2015: 3 2016: 6		2013: 2			2015: 1	2015: 1		

Document: Upload document from Student/alumni database

Department/ Centre/ Directorate **Biochemistry**

(5.3.1)Number of awards /medals for outstanding performance in sports/cultural activities at national/international level (award for achievements should be counted as one) during the last five years

Data Requirement for last five years (Academic years 2012 - 2016): Nil

Name of the award/medal	Department	National/International	Sports/Cultural

Document: Upload award letters and certificates

(5.3.3)Average number of sports and cultural activities/competitions organised at the institution level per year

Data Requirement for last five years (Academic years 2012 - 2016) : Nil

Name of the activity	Department