दिल्ली विश्वविद्यालय
University of Delhi

16BRAC2005032

Application for Ph.D. in Dr. B.R. Ambedkar Centre for Biomedical Research

Amount	Transaction No.	Payment Date
₹ 500	105057409697	2016-05-27 23:14:03.0

Department	Dr. B.R. Ambedkar Centre for Biomedical Research	**Programme**	Ph.D.	**Centre Choice**	Delhi

Name	AAYUSHI SINGH	**Category**	General	 Your Photo	
Gender	Female	**Nationality**	Indian		
Date of Birth	27-02-1993	**Age (As on 01-05-2016)**	23 Years 2 Month 5 Days		
Email	aayushisingh2793@gmail.com	**Mother/Father/Guardian's Name**	PANKAJ KUMAR SINGH		
Mobile	9910890696	**University Last Attended**	University of Delhi		
Writer Assistance Required	Not Applicable	**Postal Address**	DA-631,SHEESHMAHAL APARTMENT, , SHALIMAR BAGH,DELHI-110088 North Delhi, Delhi - 110088 , India		
Identity Proof	PAN Card	**ID Proof No.**	DLCPS0606A	**Passport**	Not Applicable

Educational Qualification

Examination Passed	Subject/ Stream	Board/ University	Year	Maximum Marks	Marks Obtained	Percentage/CGPA
10+2	Science	CBSE	2011	500	441	88.20
B.Sc (Hons)	BIOMEDICAL SCIENCE	University of Delhi	2014	3500	2769	79.11
M.Sc	BIOMEDICAL SCIENCE	University of Delhi	2016	Result Awaited	Result Awaited	Not Applicable

Last College Attended:	Last Examination Roll Number (For DU Students only):

National Level Examination	Not Applicable		
Title of Fellowship/Scholarship	**Certificate No.**	**Date**	**Fellowship Amount**
NA	NA	NA	NA
Other Details	No Fellowship		

Proposed theme and scope of research for M.Phil./Ph.D.

Analysis of Immunoexpression profile of immunomodulators to develop Immunotherapy for depression like neuropsychotic disorder

Major writings in the field in which you would like to pursue your M.Phil./Ph.D.

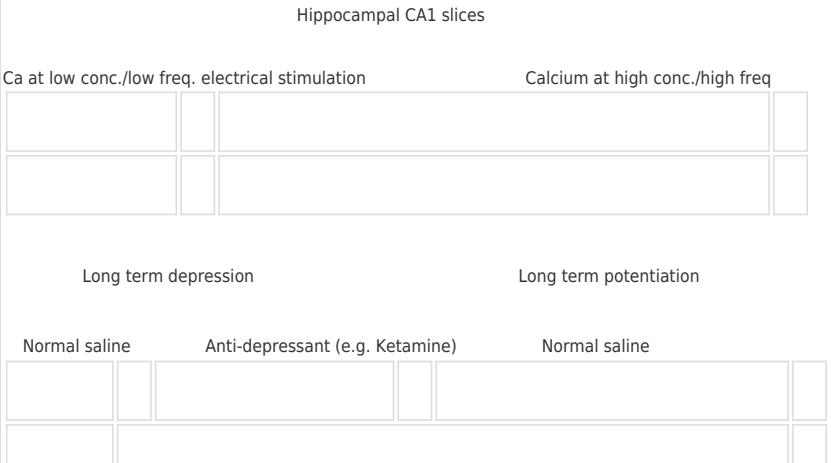
There is strong evidence that depression involves alterations in multiple aspects of immunity that may contribute to the development or exacerbation of a number of medical disorders and also may play a role in the pathophysiology of depressive symptoms. Accordingly, aggressive management of depressive disorders in medically ill populations or individuals at risk for disease may improve disease outcome or prevent disease development. On the other hand, in light of data suggesting that immune processes may interact with the pathophysiologic pathways known to contribute to depression, novel approaches to the treatment of depression may target relevant aspects of the immune response.
High levels of several proinflammatory components of the immune system, such as interleukin-6, C-reactive protein, tumor necrosis factor (TNF)-α, or neopterin in patients suffering from major depression (MD) point to the involvement of an inflammatory process in the pathophysiology of MD.
The expression profile of immunomodulators like TGF-β, TNF-α, Interleukin 6 and other cytokines during artificially induced long term depression in presence and absence of known antidepressants can be analyzed to establish the immunological basis of the various neuropsychotic disorders like depression. Comparative analysis of observations with long term potentiation would lead to better treatment strategy and relevance of immunomodulators in pathogenesis.
Reports indicate that prolonged major depression is associated with atrophy within the Central Nervous System. Such atrophy is centered in a brain region called hippocampus. It plays a critical role in learning and memory and the magnitude of hippocampus volume loss(nearly 20%) helps explain some well documented cognitive deficits that accompany major depression. Therefore in our research work hippocampus can be used as a model for studying depression

Primary sources/field work, methodology, hypothesis/research, questions and issues in the proposed field of interest.

We take hippocampus CA1 slices. To half of them we can give calcium at low concentration that is low frequency stimulation. To the other half we can give calcium at high concentration that is high frequency stimulation for several weeks. (40)

By giving low frequency stimualtion long term depression effect will be produced. Again this group is divided into two. One of the groups is treated with normal saline and the other group is treated with anti depressant like ketamine and then we study the immunoexpression profile in both the groups.If this method of inducing depression does not work then we can go for the alternatives that are mentioned below later. (60)

Similarly, long term potentiation group can be treated with normal saline and the immunoexpression profile can be analysed. Immunoexpression profile at the protein level can be analysed by
1.homogenizing the tissue , islolating the proteins , running the SDS PAGE gel and then performing western blot by using specific antibodies.
2. by performing fluorescent in situ hybridisation(FISH) with the help of specific fluorescent labelled antibodies specific for immunomodulators
3. Cytokine assay
4.Association of the immunomodulators can be checked by performing co immunoprecipitation.
Immunoexpression profile at the transcript level can be analysed by performing :
1.Polymerase Chain Reaction
2. cDNA Preparation
3. Microarray (100)



Inducing depression in experimental models is a difficult task and the most crucial step in our experiment . If the above method does not work then we can go for other methods like

Past Research Experience, Publications

Food and water deprivation, small temperature reductions, changes of cage mates for atleast two weeks, inducing pain / injury (50)

NOT APPLICABLE

Additional Information

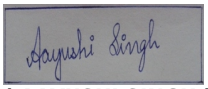
NA

Uploaded Files

1. Photo	2. Signature	3. ID Proof	4. D.O.B. Certificate

Declaration

I have checked all the entries made by me in the form. Any wrong information given by me will lead to cancellation of my admission and also penal action against me.



(AAYUSHI SINGH)

दिल्ली विश्वविद्यालय
University of Delhi

16BRAC2001916

Application for Ph.D. in Dr. B.R. Ambedkar Centre for Biomedical Research

Amount	Transaction No.	Payment Date
₹ 250	201605272161626	2016-05-27 20:16:49.0

Department	Dr. B.R. Ambedkar Centre for Biomedical Research	**Programme**	Ph.D.	**Centre Choice**	Delhi

Name	vandana	**Category**	SC	 Your Photo
Gender	Female	**Nationality**	Indian	
Date of Birth	09-02-1993	**Age (As on 01-05-2016)**	23 Years 2 Month 23 Days	
Email	vandana9293@gmail.com	**Mother/Father/Guardian's Name**	ganga prasad	
Mobile	8130944468	**University Last Attended**	University of Delhi	
Writer Assistance Required	Not Applicable	**Postal Address**	R-Z-V-7 NANDA BLOCK , MAHAVIR ENCLAVE, PALAM, MEW DELHI- 110045 South West Delhi, Delhi - 110045 , India	
Identity Proof	Aadhar Card	**ID Proof No.**	682143323490	**Passport** Not Applicable

Educational Qualification

Examination Passed	Subject/ Stream	Board/ University	Year	Maximum Marks	Marks Obtained	Percentage/CGPA
10+2	Science	CBSE	2010	500	341	68.20
B.Sc (Hons)	BIOMEDICAL SCIENCES	University of Delhi	2013	3500	2335	66.71
M.Sc	BIOMEDICAL SCIENCES	University of Delhi	2015	2400	1582	65.92

Last College Attended:	Last Examination Roll Number (For DU Students only):

National Level Examination	UGC		
Title of Fellowship/Scholarship	**Certificate No.**	**Date**	**Fellowship Amount**
CSIR-UGC-JRF	2121530481	2016-07-01	25000
Other Details	No Fellowship		

Proposed theme and scope of research for M.Phil./Ph.D.

Infectious Disease immunology

Major writings in the field in which you would like to pursue your M.Phil./Ph.D.

Sepsis is a major cause of morbidity and mortality, frequently involving acute lung injury, in hospitalized patients. Sepsis is caused by endotoxins, the LPS cell-wall components of Gram-negative bacteria. LPS, which known pathogen assisted molecular pattern (PAMP) acts as ligand for Toll like recetor 4 (TLR4). LPS on TLR4 binding triggers an innate immune response that is usually protective, however, during endotoxemia this signaling can become hyper-activated and dysregulated, thus causing excessive inflammation and widespread acute organ injury leading to death. Acute Macrophages and neutrophills are the major cellular mediators of inflammation during LPS (TLR4 agonist) induced endotoxemia which upon stimulation leads to activation of transcriptional regulators like NFkB and STAT-3 and release of pro-inflammatory cytokines like IL6 and TNFα. Macrophage activation and infiltration is an energy dependent process and accompanied with a shift to glycolytic metabolism. Targeting the metabolism and the bioenergetics of activated macrophages could be an effective strategy in reducing the severity and damage by the sepsis. 2-DG is a glycolytic inhibitor and an emerging energy restriction mimetic agent (ERMA).

Primary sources/field work, methodology, hypothesis/research, questions and issues in the proposed field of interest.

NA

Past Research Experience, Publications

One publication in Liberta Academica entitled as **“Pattern Recognition Receptors in Cancer Progression and Metastasis’’**

Additional Information

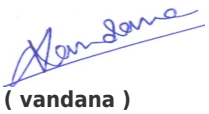
NA

Uploaded Files

1. Photo	2. Signature	3. ID Proof	4. D.O.B. Certificate	5. Caste Certificate

Declaration

I have checked all the entries made by me in the form. Any wrong information given by me will lead to cancellation of my admission and also penal action against me.



(vandana)

दिल्ली विश्वविद्यालय
University of Delhi

16BRAC2009540

Application for Ph.D. in Dr. B.R. Ambedkar Centre for Biomedical Research

Amount	Transaction No.	Payment Date
₹ 500	201605305326438	2016-05-30 23:21:51.0

Department	Dr. B.R. Ambedkar Centre for Biomedical Research	Programme	Ph.D.	Centre Choice	Delhi

Name	GEETIKA ARORA	**Category**	General	 Your Photo
Gender	Female	**Nationality**	Indian	
Date of Birth	03-11-1992	**Age (As on 01-05-2016)**	23 Years 5 Month 29 Days	
Email	geetikaarora3@gmail.com	**Mother/Father/Guardian's Name**	Mr. Rakesh Arora	
Mobile	9999837196	**University Last Attended**	University of Delhi	
Writer Assistance Required	Not Applicable	**Postal Address**	16/12 , MOTI NAGAR West Delhi, Delhi - 110015 , India	
Identity Proof	Voter's Identity Card	**ID Proof No.**	SZM1588300	**Passport** Not Applicable

Educational Qualification

Examination Passed	Subject/ Stream	Board/ University	Year	Maximum Marks	Marks Obtained	Percentage/CGPA
10+2	Science	CBSE	2010	500	424	84.80
B.Sc (Hons)	zoology	University of Delhi	2013	3500	2571	73.46
M.Sc	biomedical science	University of Delhi	2016	Result Awaited	Result Awaited	Not Applicable

Last College Attended:	Last Examination Roll Number (For DU Students only):

National Level Examination	Other (GATE)		
Title of Fellowship/Scholarship	**Certificate No.**	**Date**	**Fellowship Amount**
NO FELLOWSHIP	XL16S83067236	2016-03-23	NA
Other Details	No Fellowship		

Proposed theme and scope of research for M.Phil./Ph.D.

TO STUDY THE EFFECTS OF sin3 mutations in cancer cells and to try and block it using RNAi

Major writings in the field in which you would like to pursue your M.Phil./Ph.D.

so far role of sin3 has been found in deacetylation of several transcription factors.
its role in heterochromatization has been tried to figure out.
its levels in various cancer cells havebeen estimated.

Primary sources/field work, methodology, hypothesis/research, questions and issues in the proposed field of interest.

Sin3 is a highly conserved structure from yeast to humans with its 6 highly conserved regions (HCRs). Four of them them are paired alpha-helices (paah) that share structural similarity with helix loop helix dimerisation domain of myc family of TFs. one is histone deacetylase (HDAC)ninteraction domain and the last one is HCR. interestingly, it has not got any DNA bonding domain. it acts as both positive and negative regulators of transcription by interacting with other DNA binding proteins.
Sin3A/B and TUMOUR SUPPRESSOR GENES :
1. MAD-MAX COMPLEX RECRUITS Sin 3 to DNA promotor site. sin3 associated to HDAC1/2 causes repression of transcriptional activity of linked VP16 and c-myc transactivation domains.
2. interaction of sin3/HDAC results in deacetylation and degradation of Myc proteins
3. its level increases under conditions of stress induced by RAS which is an oncogene.
4. it is increased under conditions of oncogenic stress. it is important in increasing stability and trans repressive functions of TP53.
5. it also interacts with RB family of tumor suppressor. it represses the transcription of E2F responsive pro-proliferation genes.
6. it interacts with BRMS1 and inhibits metastasis in several types of cancer.

role of sin 3 has been found to be of tumor suppressor in some case and of proto-oncogne in others. this is the biggets challange if we want to get some advantage of its activity in chemotherapy and cancer.
to be able to derive benefits from this protein, we need to find out its interactions with several proteins whose expressions are found to be high in cancer cells and then try to figure out the mechanism by which it regulates cell proliferation, differentiation or tansformation.
strategy:
1. TO LOOK FOR THE PRESENCE OF SID (SIN3 BINDING DOMAIN) IN CELL REGULATORY PROTEINS LIKE p53, RB, myc, RB, p16, NF-kB and other such proteins using protein sequence database.
2. Co-IP of SID containing proteins with sin3 protein.
3. epigenetic changes like acetylation, phosphorylation etc. at the site of those genes whose proteins are found to be associated to with sin3.
4. mutant type of sin3 associated with a particular cancer cells type and its differential role in regulation.

therapy: effect of RNAi against sin3 in cancerous cells vs naormal cells to see whether it prevents cancer progression in cancerous cells or not and what effect does it has on normal cell analogue.

Past Research Experience, Publications

One semester dissertation experience in DRDO, INMAS IN Mr. RAVI SONI's LAB ON dissertation topic-"TO ESTIMATE THE EFFECTS OF AMISFOSTINE ANALOGUE IN RADIATION INDUCED HEMATOPOIETIC INJURY".
TWO MONTHS TRAINING EXPERIENCE IN DEPARTMENT OF ZOOLOGY, DU IN PROFFESOR K. MURLIDHAR's LAB ON RESEARCH TOPIC "TO STUDY THE AFFINITY OF DIFFERENT COLUMN S TOWARDS PMSG HORMONE AND ANALYSIS OF DATA BY IMMUNOREACTIVITY".

Additional Information

..

Uploaded Files

1. Photo	2. Signature	3. ID Proof	4. D.O.B. Certificate

Declaration

I have checked all the entries made by me in the form. Any wrong information given by me will lead to cancellation of my admission and also penal action against me.

(GEETIKA ARORA)

दिल्ली विश्वविद्यालय
University of Delhi

16BRAC2010704

Application for Ph.D. in Dr. B.R. Ambedkar Centre for Biomedical Research

Amount	Transaction No.	Payment Date
₹ 250	201605315766282	2016-05-31 13:27:23.0

Department	Dr. B.R. Ambedkar Centre for Biomedical Research	Programme	Ph.D.	Centre Choice	Delhi

Name	priyanka rani	**Category**	SC	 Your Photo
Gender	Female	**Nationality**	Indian	
Date of Birth	08-09-1992	**Age (As on 01-05-2016)**	23 Years 7 Month 24 Days	
Email	twinkle9.littlestar@gmail.com	**Mother/Father/Guardian's Name**	jugbir singh	
Mobile	9654103081	**University Last Attended**	University of Delhi	
Writer Assistance Required	Not Applicable	**Postal Address**	H.NO.1208 SECTOR-09 , OLD VIJAY NAGAR GHAZIABAD Ghaziabad, Uttar Pradesh - 201001 , India	
Identity Proof	Voter's Identity Card	**ID Proof No.**	NDN2080356	**Passport** Not Applicable

Educational Qualification

Examination Passed	Subject/ Stream	Board/ University	Year	Maximum Marks	Marks Obtained	Percentage/CGPA
10+2	Science	CBSE	2010	600	447	74.50
B.Sc (Program)	LIFE SCIENCES	University of Delhi	2014	3500	2161	61.74
M.Sc	BIOMEDICAL SCIENCES	University of Delhi	2016	Result Awaited	Result Awaited	Not Applicable

Last College Attended:	Last Examination Roll Number (For DU Students only):

National Level Examination	Not Applicable		
Title of Fellowship/Scholarship	**Certificate No.**	**Date**	**Fellowship Amount**
NA	NA	NA	NA
Other Details	No Fellowship		

Proposed theme and scope of research for M.Phil./Ph.D.

NOT APPLICABLE

Major writings in the field in which you would like to pursue your M.Phil./Ph.D.

NOT APPLICABLE

Primary sources/field work, methodology, hypothesis/research, questions and issues in the proposed field of interest.

NA

Past Research Experience, Publications

NA

Additional Information

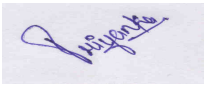
NA

Uploaded Files

1. Photo | 2. Signature | 3. ID Proof | 4. D.O.B. Certificate | 5. Caste Certificate

Declaration

I have checked all the entries made by me in the form. Any wrong information given by me will lead to cancellation of my admission and also penal action against me.



(priyanka rani)

दिल्ली विश्वविद्यालय
University of Delhi

16BRAC2000798

Application for Ph.D. in Dr. B.R. Ambedkar Centre for Biomedical Research

Amount	Transaction No.	Payment Date
₹ 500	3760693271661410	2016-05-20 16:26:48.0

Department	Dr. B.R. Ambedkar Centre for Biomedical Research	Programme	Ph.D.	Centre Choice	Delhi

Name	Aniket Kumar Bansal	**Category**	General	 Your Photo
Gender	Male	**Nationality**	Indian	
Date of Birth	28-07-1990	**Age (As on 01-05-2016)**	25 Years 9 Month 4 Days	
Email	aniketbansalx@gmail.com	**Mother/Father/Guardian's Name**	Arvind Kumar	
Mobile	9654827376	**University Last Attended**	University of Delhi	
Writer Assistance Required	Not Applicable	**Postal Address**	33 , ashok nagar Agra, Uttar Pradesh - 282007 , India	
Identity Proof	PAN Card	**ID Proof No.**	CIAPB8519B	**Passport** K3344984

Educational Qualification

Examination Passed	Subject/ Stream	Board/ University	Year	Maximum Marks	Marks Obtained	Percentage/CGPA
10+2	Science	CBSE	2008	500	370	74.00
B.Sc (Hons)	botany	University of Delhi	2013	1000	636	63.60
M.Sc	Biomedical Science	University of Delhi	2014	2400	1452	60.50

Last College Attended:	Last Examination Roll Number (For DU Students only):

National Level Examination	CSIR		
Title of Fellowship/Scholarship	**Certificate No.**	**Date**	**Fellowship Amount**
Junior Research Fellowship	1061430485	2014-11-28	32500
Other Details	Not Applicable		

Proposed theme and scope of research for M.Phil./Ph.D.

osmolytes and cancer

Major writings in the field in which you would like to pursue your M.Phil./Ph.D.

the major writings include
Hallmarks of cancer
living with water stress evolution of osmolyte systems
40 Years of cancer research

Primary sources/field work, methodology, hypothesis/research, questions and issues in the proposed field of interest.

cancer cells so far have been studied in isolation. it is only now that people are beging to appriciate the role of the tumor microenviornment in cancer. the tumor microenviornment as i understand it is not conducive for normal cells to grow it provides constant selection pressure to the cancer cells challenging them to survive in increasingly harsh conditions. Another important factor for cancer cells it constant cell division. Uncontrolled cell division is one of the hallmarks of cancer. For cell division to happen the cell needs to maintain a certain cell volume.
As i have already stated above the tumor microenviornment constantly stresses out even the cancer cells and thus these cells have trouble in maintaining cell volume because of high osmolarity of the microenviornment. the cell retains its volume by using osmolytes. But all osmolytes are not conducive to all cells, in my current studies in the lab i have realized that even cancer cell lines originating for the same type of cancer can show certain vairabilty in osmolyte acceptance and regection. what i eventually envision is to have an highly effective osmolyte cocktail the drastically increases the mortality of given cancer cell lines.
The idea is that since normal cells in the body are not similarly stressed as cancer cells such cocktails may prove atoxic to normal cells while maintainig high toxicity for cancer cells givingrise to less deadly and more specific types of cancer therapy

Past Research Experience, Publications

no

Additional Information

NA

Employment Details

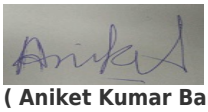
Employment Type	Full Time	**Organization**	ACBR	**Designation**	JRF
From	2015-03-03	**Salary**	32500		

Uploaded Files

1. Photo | 2. Signature | 3. ID Proof | 4. D.O.B. Certificate

Declaration

I have checked all the entries made by me in the form. Any wrong information given by me will lead to cancellation of my admission and also penal action against me.



(Aniket Kumar Bansal)