

BIODATA

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Current position: Associate Consultant, Hematopathology, Department of Lab Medicine, P.D.Hinduja National Hospital & Medical Research Centre, Mumbai – Jan 2010 onwards

QUALIFICATIONS

- **M.D. (Pathology)** from Postgraduate Institute of Medical Education and Research, Chandigarh, India. Passed out in December 2007
- **M.B.B.S.** from Seth G.S. Medical College and KEM Hospital Parel, Mumbai, India. Passed out in December 2003.

Areas Of Interest: Flow Cytometry - Instrument Setup and Standardisation

Flow Cytometry based, Minimal Residual Disease Detection in ALL

High sensitivity PNH assay using FLAER

Research Parameters on CBC analysers

i) Postgraduate career

a. Fellowship and Senior residency

Hematopathology laboratory, Department of Pathology, Tata Memorial Centre, Parel, Mumbai, India

Fellowship- August 2010 to December 2010

Senior Residency- March 2008 to July 2009, December 2009 to July 2010.

Academic activity as Fellow and Senior resident:

i) Diagnostics-

- Reporting of peripheral blood smears and Bone marrow aspirates
- Flow cytometric Immunophenotyping of Hematolymphoid neoplasms – Processing, acquisition and analysis.
- Routine CBC and Coagulation work up.
- Routine processing and analysis of PCR results in the molecular pathology lab with major emphasis on bcr-abl and common leukemic translocations like t(15,17), t(8,21),etc.

ii) Teaching –

Training of M.D. pathology residents, D.M medical oncology residents, technical and nursing staff

iii) Projects-

- Development and Standardisation of Six colour Antibody panels for Immunophenotyping of Leukemias and Lymphomas.
- MRD Lite for B Cell ALL – Standardisation and setup as per St. Jude's Protocol
- Actively involved in the NABL accreditation of the Hematopathology lab at TMC
- Active member of the Inter Laboratory Comparison Program (ILCP) as part of the External Quality Assurance Scheme (EQAS) between different Flowcytometric laboratories all over India. This is conducted by Hematopathology laboratory, TMC.

b. UICC ICRETT Research Fellowship

Flowcytometry Laboratory, John Hopkins Hospital, Baltimore, USA,
August – November 2009

Awarded the International Union Against Cancer (UICC)-International Cancer Technology Transfer Fellowship (ICRETT) at John Hopkins Hospital, Baltimore USA.

Project- Development and standardization of eight colour flow cytometric antibody panels for immunophenotyping of AMLs and evaluating potential MRD markers for AML.

Guide: Michael J. Borowitz, M.D., Ph.D.

Activity as a Research Fellow:

- Training in standardisation of multiparametric immunophenotyping of leukemias and lymphomas
- Minimal Residual Disease analysis for B cell ALL
- T cell subset analysis
- PNH diagnosis using FLAER
- CD34 Stem cell counts

c. Junior residency

Department of Pathology, Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh, India. Jan 2005 – Dec 2007.

Awarded **Kataria Gold Medal for the best overall student of PGIMER 2008**. The award was presented by the Prime Minister of India in the month of November 2009.

Awarded **Silver Medal** (first order) in recognition of merit during the period of studies for M.D. Pathology course at PGIMER.

- During the degree period, completed 10 months posting in Hematopathology, 10 months posting in Histopathology, 6 months posting in Cytology, 5 months in Autopsy, 5 months in Immunopathology.
- Presented seminars and lectures, cases in biopsy rounds and gynaecology tumour clinics and journal clubs on various topics allotted during the degree period.
- Presented 12 Clinico-pathological cases at the CPC meetings in the institute.
- During autopsy postings, performed 200 non-medico legal autopsies.
- Received training in performing adult and pediatric bone marrows, FNAC procedure, adult and pediatric autopsies and surgical specimen grossing.

- Completed a course in Research Methodology & Biostatistics from PGIMER, Chandigarh.

ii.) Undergraduate career

Seth G.S. Medical College and KEM Hospital Parel, Mumbai, India.

1998- 2003

First year MBBS- Distinctions in Anatomy and Biochemistry

Second year MBBS- Distinctions in Pharmacology and Microbiology

Third year MBBS (Part 1) - stood **Second** amongst a batch of 180 students with distinctions in the subject of Preventive and social medicine (PSM) and ENT.

Third year MBBS (Part 2) - Distinction in the subject of Paediatrics (Highest in the batch)

USMLE (United States Medical League Examination) Step 1, Sept. 2004- **99 percentile**

AIPGME (All India Post Graduate Medical Entrance), Jan 2005 - **Rank 33**

4. RESEARCH

Immunophenotypic profiling of normal CD20 positive T cells in normal peripheral blood and bone marrow. [Currently Ongoing]

Standardisation of flow cytometric Minimal Residual Disease assay(based on COG protocol) for B- Acute Lymphoblastic Leukemia [Currently Ongoing]

Standardisation of Six colour Flowcytometry assay for the diagnosis and monitoring of Paroxysmal Nocturnal Hemoglobinuria using FLAER, as per 2010 International Guidelines [Completed]

Role of IPF (Immature Platelet Fraction) in predicting platelet count recovery in Dengue patients. [Completed]

Evaluation and comparison of CBC based indices for screening of beta thalassemia trait and its prevalence in a tertiary care hospital. [Completed]

Rapid malaria Antigen Test- Which kit is more reliable? [Completed]

Successfully completed a **research project (thesis)** entitled: “Expression of Ki-67 and apoptosis regulating proteins Bcl-2 and Bax in follicular adenomas and minimally invasive & widely invasive follicular carcinomas of the thyroid” under the able guidance of Dr Uma Nahar Saikia, Assistant Professor, Department Of Histopathology, PGIMER, Chandigarh, India.

Publications

Parvovirus B19 presenting with persistent pancytopenia in a patient of T-ALL post induction chemotherapy diagnosed on bone marrow examination.

Gadage VS, Viswanathan S, Kunal S, Subramanian PG, Gujral S

Indian J Pathol Microbiol. 2011 Jul-Sep ;54(3):603-5.

Leukemic phase of anaplastic lymphoma kinase positive, anaplastic large cell lymphoma.

Gadage VS, Subramanian PG, Galani KS, Sehgal KK, Johari SP, Ghogale VS, Badrinath Y, Ashok K, Gujral S

Indian J Pathol Microbiol. 2011 Jul-Sep ;54(3):599-602.

Immunophenotypic profile of plasma cell leukemia: a retrospective study in a reference cancer center in India and review of literature.

Tembhare PR, Subramanian PG, Sehgal K, Yajamanam B, Kumar A, Gadage V, Inamdar N, Gujral S

Indian J Pathol Microbiol. 2011 Apr-Jun ;54(2):294-8.

Comparison of platelet counts by CellDyn Sapphire (Abbot Diagnostics), LH750 (Beckman Coulter), ReaPanThrombo immunoplatelet method (ReaMetrix), and the international flow reference method, in thrombocytopenic blood samples.

Sehgal K, Badrinath Y, Tembhare P, Subramanian PG, Talole S, Kumar A, Gadage V, Mahadik S, Ghogale S, Gujral S

Cytometry B Clin Cytom. 2010 Jul;78(4):279-85.

Megakaryocytic emperipolesis: a histological finding in myelodysplastic syndrome.

Sable MN, Sehgal K, Gadage VS, Subramanian PG, Gujral S

Indian J Pathol Microbiol. 2009 Oct-Dec ;52(4):599-600.

Hypergranular precursor B-cell acute lymphoblastic leukemia in a 16-year-old boy

Tembhare PR, Subramanian PG, Sehgal K, Yajamanam B, Kumar A, Gujral S

Indian J Pathol Microbiol. 2009 Jul-Sep ;52(3):421-3.

Exflagellated microgametes of Plasmodium vivax in human peripheral blood: a case report and review of the literature.

Tembhare P, Shirke S, Subramanian PG, Sehgal K, Gujral S

Indian J Pathol Microbiol. 2009 Apr-Jun ;52(2):252-4.

Intracytoplasmic antigen study by flow cytometry in hematolymphoid neoplasm.

Gujral S, Tembhare P, Badrinath Y, Subramanian PG, Kumar A, Sehgal K

Indian J Pathol Microbiol. 2009 Apr-Jun ;52(2):135-44.

Squamous metaplasia of the rectum in a case of Hirschsprung's disease: a coincidence or an association.

Mahesha V, Sehgal K, Saikia UN, Rao KL

J Clin Pathol. 2006 Aug;59(8):889-90.

Hepatosplenic $\gamma\delta$ T-Cell Lymphoma Masquerading as T Cell Acute Lymphoblastic Leukemia. Kunal Sehgal, P. G. Subramanian, Prashant Tembhare, Y. Badrinath, Ashok Kumar, S. D. Banavali, B. Arora, Pratibha Amare Kadam, and Sumeet Gujral.

Blood (ASH Annual Meeting Abstracts), Nov 2008; 112: 5310.

PAPERS SUBMITTED FOR PUBLICATION

Reference range evaluation of CBC parameters with emphasis on newer research parameters on the CBC analyser SYSMEX XE-2100. (IJPM)

Comparison of platelet counts by Sysmex XE2100 & LH750 with the International Flow Reference method in thrombocytopenic patients. (IJPM)

Workshops and Invited talks

- Invited Faculty- topic-“Basic Coagulation Tests and Pathway” at a CME for Medical Laboratory Technicians held at Tata Hospital on 22nd December 2012.
- Invited Faculty- topic-“Multicolour Immunophenotyping – Instrument Setup” at the Indo-US flowcytometry workshop held at IIT, Guwahati from 9th – 10th October 2012.
- Invited Faculty- topic-‘PNH by FLAER’ at a Beckman Coulter Flowcytometry CME on 1st October 2012 at Mumbai.
- Invited Faculty- Two workshops on ‘Multicolour Immunophenotyping’ and ‘PNH by FLAER’ at a Flowcytometry workshop held at NIIH, KEM Hospital on 4th and 6th of September 2012.
- Invited Faculty- topic- ‘Newer parameters on CBC analysers and Normal ranges’ Sysmex XE-User group meeting on 23rd June 2012 at Hyderabad.
- Invited Faculty- Topic- ‘Quality Control in a Flow Cytometry laboratory’ at the Second International flowcytometry conference titled ‘Multicolour Immunophenotyping- Standardisation and Applications’ held at Tata Memorial Hospital, Mumbai in March 2012.
- Invited Faculty- Topic-‘ Flowcytometry in lymph node diagnosis’ at the ESCA conference held at Tata Memorial Hospital, 5th January 2012.
- Invited Faculty-Topic – ‘Normal patterns by Flow cytometry in Normal Peripheral blood and Bone marrow’ at the 18th Annual Hematology CME at Bombay Hospital on 28th January 2012.
- Invited Faculty-Topic – ‘Immunophenotyping Basics’ at Annual Hematology CME, at TNMC and BYL Nair hospital, 26th and 27th Nov 2011
- Invited Faculty-Clinical Flowcytometry Workshop at NCBS Bangalore, 3rd Nov 2011.
- Participated as Faculty at the Sixth Clinical Flow Cytometry Course held at Tata Memorial Hospital, August 2011, Mumbai.
- Conducted workshop on ‘Flow Cytometry – Principles and Applications’ as Faculty member at the Basic Hematopathology Course held at Tata Memorial Hospital, June 2011
- Invited Faculty-Topic- “Newer Hematological Parameters- Do we really need them?” at the Sysmex international Conference at Manila Philipines 28th- 30th April 2011.
- Participated as Faculty at the Fifth Clinical Flow Cytometry Course held at Tata Memorial Hospital, 14th-15th Feb 2011, Mumbai.
- Invited Faculty-Topic- ‘Flowcytometric Immunophenotyping – Case Studies’ Multispeciality Pathology update KEM 10th-12th Feb 2011
- Conducted workshop on ‘Flow Cytometry – Principles and Applications’ as Faculty member at the Basic Hematopathology Course held at Tata Memorial Hospital, June 2010
- Participated as Faculty at the Second Clinical Flow Cytometry Course held at Tata Memorial Hospital, August 2009, Mumbai.

- Participated as Faculty at the First CBC Course held at Tata Memorial Hospital, August 2009, Mumbai.
- Invited Faculty-Topic- 'Flow Cytometry- Instrument Setup and Standardisation' at the Annual The Cytometry Society India conference, at NCBS Bangalore October 2009
- Participated as Faculty at the First Clinical Flow Cytometry Course held at Tata Memorial Hospital, March 2009, Mumbai.

Presentations at Conferences as Delegate

- Organising Secretary the 34th Annual Mumbai Hematology Conference, Mumbai, March 2012 and gave a presentation on Newer Research Parameters on CBC Analysers and Part Of the Panelist on "Nagging Issues In ALL treatment"
- **H.M Bhatia award for the best oral paper presentation** at the 32nd annual conference of the Mumbai Hematology Group for the paper titled "Comparison of platelet counts by CellDyn Sapphire (Abbot Diagnostics), LH750 (Beckman Coulter), ReaPanThrombo Immunoplatelet method (ReaMetrix) and the International flow reference method, in thrombocytopenic blood samples"
- **Awarded 2ND PRIZE** for Poster presentation titled "Simultaneous Plasmodium vivax infection in 2 siblings double heterozygotes for Hb SD Punjab" at the Hematology Conference, North-west Chapter of IAPM- 27 September, 2005, at PGIMER, Chandigarh.
- Oral paper presentation titled "Histopathological features of Fibrous Dysplasia of Bone and its Clinical correlation" at 54th Annual Conference of the Indian Association of Pathologists and Microbiologists held at Indore in December 2005.

Conferences and Continuing Medical Education Programs Attended

- Attended the The Cytometry Society – India, Annual Conference held at Kolkatta from 12th – 13th October 2012.
- Second International flowcytometry conference titled 'Multiparameteric Immunophenotyping- Standardisation and Applications' held at Tata memorial hospital, Mumbai in March 2012.
- Annual, The Cytometry Society India conference and INDO US Workshops-PNH and MRD workshops attended, 8th-12th Oct 2011, PGIMER Chandigarh

- VCS meet on CBC parameters at Delhi 16th-18th September 2011
- Organizing Secretary the 34th Annual Mumbai Hematology Conference, Mumbai, March 5th and 6th 2011
- Attended the Annual EBM conference at Tata Memorial Hospital on 26th of February 2011.
- Attended the RGCON MRD workshop at Delhi 4th-6th Feb 2011
- Attended the 15th National CME in Hematology held at Bombay Hospital 26th - 29th of January 2011.
- 25th Annual Clinical Cytometry Society Meeting and Course, October 2009, Jacksonville Florida
- 32nd annual conference of the Mumbai Hematology Group , March 2009, Mumbai
- XV National CME in Hematology at Bombay Hospital, January 2009, Mumbai
- “An Update on Lymphoma Pathology” at TATA Memorial Centre, Nov. 2008.
- National meeting on guidelines for immunophenotyping of hematolymphoid neoplasms at TATA Memorial Centre in March 2008.
- 56th Annual conference of Indian Association of Pathologist and Microbiologist at PGIMER Chandigarh in November 2007.
- 1st National course on Renal Pathology by Pathology study society –AIIMS at AIIMS, New Delhi in August 2007.
- Progress in Pathology: An International Update at St. John’s Medical College, Bangalore in February 2006.
- 54th Annual conference of Indian Association of Pathologist and Microbiologist at Indore in December 2005.
- 32nd Annual Conference, IMMCON 2005 by Indian Immunology Society in November 2005 at PGIMER, Chandigarh.
- Indian Society of Haematology & Transfusion Medicine, North-west Chapter of IAPM- 27 September, 2005, at PGIMER, Chandigarh.

5. Extracurricular Activities

i.)Sports

- **Gold medal** –Basketball, Annual Sports Meet PGIMER Chandigarh 2007
- **Gold medal** –Football, Annual Sports Meet PGIMER Chandigarh 2007.
- **Gold medal** –Basketball, Annual Sports Meet PGIMER Chandigarh 2006.
- **Silver medal** –Cricket, Annual Sports Meet PGIMER Chandigarh 2006.
- **Silver medal** –Football, Annual Sports Meet PGIMER Chandigarh 2006.
- **Silver medal** –Football, Annual Sports Meet PGIMER Chandigarh 2005.
- **Silver medal** –Basketball, Annual Sports Meet PGIMER Chandigarh 2005.

ii.)Cultural

- Member of the ARD (Association of Resident Doctors) committee as the **Mess secretary Upper café**, PGIMER Chandigarh for the year period 2006-2007.
- Co-Chief organizer of Springfest-2007, the annual cultural festival and Co-Organiser Annual Sports meet – 2007in PGIMER Chandigarh.
- **Lawn Tennis Secretary** for the year 2000-2001 at Seth G.S.M.C and KEMH.

- Incharge and participant of the inaugural event '**DREAMS**' at Aavishkaar 2001, the annual cultural festival in Seth G.S. medical college and KEMH. This was a 30 song sequence dance drama performed by 40 students in front of an audience of 850 people with a budget of one and a half lacs.
- Performing Arts in charge during Aavishkaar 2001, the annual cultural festival in Seth G.S. medical college and KEMH.
- **First** prize for the **Fashion Show** Competition Held during the annual cultural festival in Seth G.S. medical college and KEMH -Aavishkaar 2001, with participation from all the medical and dental colleges of Mumbai.
- Participated in the Lawn tennis tournament and the Badminton doubles tournament at 'Pulse' 1999 the annual cultural festival held at AIIMS.