

Journal of Laboratory Physicians

Official Publication of The Indian Association of Laboratory Physicians

Editor-in-Chief

Sarman Singh

Director
All India Institute of Medical Sciences
Bhopal, India

Associate Editors

Biochemistry

Sudip Kumar Datta

Associate Professor
Department of Laboratory Medicine
All India Institute of Medical Sciences
New Delhi, India

Clinical Virology

Amita Jain

Head, Department of Microbiology,
King George's Medical University,
Lucknow, India

Debasis Biswas

Head, Department of Microbiology,
All India Institute of Medical Sciences,
Bhopal, India

Gynaecology & Obstetrics, Genitourinary Tuberculosis

JB Sharma

Professor
Department of Obstetrics and
Gynaecology
All India Institute of Medical Sciences
New Delhi, India

Hematology & Blood Transfusion

Arulselvi Subramanian

Also (senior Most) Associate Editor
Professor of Pathology
Department of Laboratory Medicine
JPN Apex Trauma Centre,
All India Institute of Medical Sciences
New Delhi, India

Histopathology

Fakeha Rehman

Department of Pathology
King Edward Medical University
Lahore, Pakistan

Siddhartha Dattagupta

Former Professor of Pathology
All India Institute of Medical Sciences
New Delhi, India

Laboratory Medicine

Jen-Fan Hang

Department of Pathology and Laboratory Medicine,
Taipei Veterans General Hospital,
Taipei,
Taiwan School of Medicine, National
Yang-Ming University,
Taipei, Taiwan

Metabolic Disorders

Sanjay Kumar Agarwal

Professor and Head
Department of Nephrology
All India Institute of Medical Sciences
New Delhi, India

Microbiology

Debasis Biswas

Head, Department of Microbiology,
All India Institute of Medical Sciences,
Bhopal, India

Purva Mathur

Professor of Microbiology
Department of Laboratory Medicine
JPN Apex Trauma Centre,
All India Institute of Medical Sciences
New Delhi, India

Vikas Manchanda

Associate Professor
Department of Microbiology
Maulana Azad Medical College
New Delhi, India

Molecular Biology

Amita Jain

Head, Department of Microbiology,
King George's Medical University,
Lucknow, India

Debasis Biswas

Head, Department of Microbiology,
All India Institute of Medical Sciences,
Bhopal, India

MR Shivaprakash

Professor
Department of Microbiology
Post Graduate Institute of Medical
Education and Research
Chandigarh, India

Sudip Kumar Datta

Associate Professor
Department of Laboratory Medicine
All India Institute of Medical Sciences
New Delhi, India

Mycology

Jagdish Chander

Professor & Head
Department of Microbiology
Chandigarh Medical College
Chandigarh, India

MR Shivaprakash

Professor
Department of Microbiology
Post Graduate Institute of Medical
Education and Research
Chandigarh, India

Nephrology

Sanjay Kumar Agarwal

Professor and Head
Department of Nephrology
All India Institute of Medical Sciences
New Delhi, India

Pathology

Arulselvi Subramanian

Professor of Pathology
Department of Laboratory Medicine
JPN Apex Trauma Centre,
All India Institute of Medical Sciences
New Delhi, India

Semir Vranic

UICC Fellow
Assistant Professor of Pathology
College of Medicine
Qatar University
Doha, Qatar

Siddhartha Dattagupta

Former Professor of Pathology
All India Institute of Medical Sciences
New Delhi, India

Jen-Fan Hang

Department of Pathology and Laboratory Medicine,
Taipei Veterans General Hospital,
Taipei,
Taiwan School of Medicine, National
Yang-Ming University,
Taipei, Taiwan

Copyright ©2020 The Indian Association of Laboratory Physicians. All rights, including the rights of publication, distribution, and sales, as well as the right to translation, are reserved. No part of this work covered by the copyrights hereon may be reproduced or copied in any form or by any means – graphic, electronic, or mechanical, including photocopying, recording, taping, or information and retrieval systems - without written permission of the publisher

Journal of Laboratory Physicians is published 4 times a year in March, June, September, and December by Thieme Medical and Scientific Publishers Private Limited, A-12, Second Floor, Sector-2, Noida-201301, Uttar Pradesh, India. Tel: +91-120-4556600, Fax: +91-120-455-6649.

Subscription: Open access journals available online for free at <http://open.thieme.com>.

Advertisers contact: Marketing, Thieme Publishers Delhi, A-12, Second Floor, Sector -2, Noida-201301, Uttar Pradesh, marketing@thieme.in.

Journal of Laboratory Physicians is indexed in DOAJ, ESCI, Indian Science Abstracts, IndMed, PubMed Central, Web of Science, EBSCO Publishing's Electronic Databases, ProQuest, and National Science Library. Thieme Medical Publishers is a member of the CrossRef initiative..

Editorial comments should be sent to journals@thieme.com. The content of this journal is available online at www.thieme-connect.com/Products. Visit our Web site at www.thieme.com and the direct link to this journal at www.thieme.com/jlp.

Typesetting: DiTech Process Solutions Pvt. Ltd. Mumbai, India

Printing and Binding: Avantika Printers Pvt. Ltd.

Printed in India