

Four decades of my Research Journey: Challenges & Triumphs

Dr. (Prof.) Raju Vaishya

MS, MCh, FRCS, FACS

Professor & Senior Consultant Orthopaedic Surgeon
Indraprastha Apollo Hospitals, New Delhi



Government of Nepal
Nepal Health Research Council

BE INSPIRED
and then pass on the
INSPIRATION

“Be the change that you wish to see in the world” — Mahatma Gandhi

Early Foundation



1973

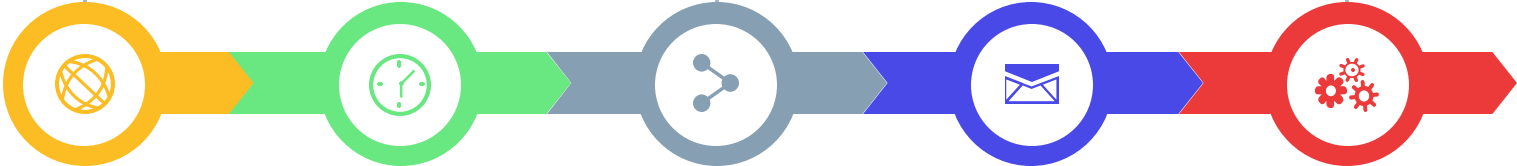
Learnt Typing
(Courtsey: My Dad)

1977

Topper of Jiwaji
Univeristy and
Admission in
G.R. Medical
College

1983-1986

Encouragement
of Prof. B. Das



Tutored by
Mr Arun
Chaudhary

1975-1977

Influence of
Dr. B.D. Chaurasia

1977-78





“A mentor is someone who sees more talent and ability within you, than you see in yourself, and helps bring it out of you” - Bob Proctor

My First Research Theses

"CLINICO-EXPERIMENTAL STUDY OF FOREIGN BODY REACTIONS IN EXTREMITIES"

THESIS

for

M. S. (Orthopaedics)

of

JIWAJI UNIVERSITY, GWALIOR

April 1986

by

R. VAISHYA

DEPARTMENT OF ORTHOPAEDICS
GAJRA RAJA MEDICAL COLLEGE
GWALIOR (M. P.)

THE ROLE OF C. T. ARTHROGRAPHY IN PATELLO-FEMORAL DISORDERS

BY

R. VAISHYA

M.B., B.S., M.S. (ORTH.)

Thesis presented for the Degree of
M. Ch. (Orth.)

UNIVERSITY OF LIVERPOOL

1990

The Early Steps: A Spark Ignites

1987

Met Prof. Robert Owen (Liverpool)

1988

Learnt Computer
(Courtsey: My wife)

1988-1989

Mentored by Mr. David Jaffray (Oswestry) & published 1st 3 papers

1990

-Admission in MCh
(Liverpool)
- Published 3 papers
with Prof. Klenerman



My first five publications (most difficult!)

BILATERAL CYSTS OF THE LATERAL FEMORAL TROCHLEA

by R. VAISHYA* and A. STROVER*

Injury (1991) **22**, (1), 47–48 *Printed in Great Britain*

Isolated dorsal fracture-dislocation of the tarsal navicular

R. Vaishya and J. H. Patrick

The Robert Jones and Agnes Hunt Orthopaedic Hospital, Oswestry, Shropshire, UK.

NONUNION OF AN OSTEOCHONDROMA

by R. VAISHYA, C. S. MUDGAL and L. KLENERMAN

Injury (1990) **21**, 97–100 *Printed in Great Britain*

A thorny problem: the diagnosis and treatment of acacia thorn injuries

Raju Vaishya

G.R. Medical College Hospital, Gwalior, India

International Orthopaedics (SICOT) (1990) 14: 47–48

**International
Orthopaedics**

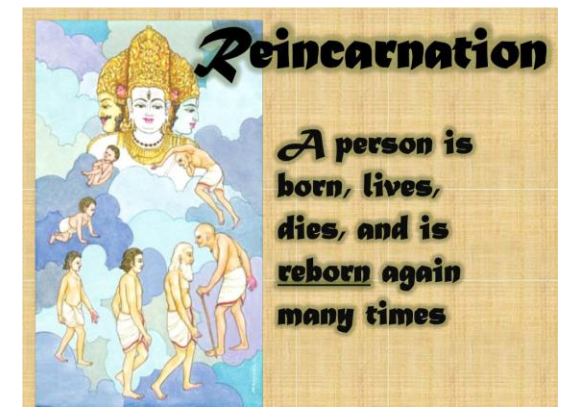
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Lesions produced by splinters of wood in soft tissues and bone

V. P. Middha and R. Vaishya

Department of Orthopaedic Surgery, Gajra Raja Medical College and J. A. Group of Hospitals, Gwalior, India

Reincarnation of Research Activities



1999

Dr Ajay Pal Singh
(Registrar)

Reignited the Research
interest



2005-2018

Associates &
Fellows

Helped to build up
the Research &
Publication base

2013-2020

Dr. Lalit
Maini

Brought me to
the JCOT



2013-2023

Research Awards

- Best Publication
- Beat Research
- Dr BC Roy
- 6 Orations
- Adjunct Professor
- Distinguished Researcher

Main Research Collaborators



Abhishek Vaish



Amit K Agarwal



Vipul Vijay



Abid Haleem



Sourabh Ghosh



Mohd Javaid



Srinivas K



Mohit Patralekh



Vijay K Jain



Kartikeyan P Iyengar



Rajesh Botchu



BM Gupta

Challenges: The Road Less Travelled

- Lack of mentorship
- Paucity of time
- Inadequate incentive (in practice)
- Scepticism surrounding new ideas
- Publishing impactful results
- Funding limitations

Overcoming Obstacles: Perseverance Pays Off

- Determination
- Finding time for research
- Meticulous record keeping and analysis of data
- Countless revisions of research papers
- Regular literature reading

(Each obstacle overcome brought me closer to my goal: Making a genuine difference in the lives of people, and leaving a permanent impact)



**“Try not to become a man of success
Rather become a man of value” – Albert Einstein**

The super research wave: Covid-19 pandemic



Top 2% Global Researchers

Top Indian Orthopaedic Researchers in the Global 2% list (2022)

S. No.	Author	Institution
1	Rajasekaran, S.	Ganga Hospital, Coimbatore
2	Vaishya, Raju	Indraprastha Apollo Hospitals, New Delhi
3	Jain, Anil	University College of Medical Sciences, Delhi
4	Malhotra, Rajesh	All India Institute of Medical Sciences, New Delhi
5	Garg, Bhavuk	All India Institute of Medical Sciences, New Delhi
6	Dhillon, Mandeep S.	Postgraduate Institute of Medical Education & Research, Chandigarh
7	Tuli, S. M.	Vidyasagar Institute of Mental Health and Neurosciences Hospital, New Delhi
8	Jain, Vijay Kumar	Dr. Ram Manohar Lohia Hospital, New Delhi
9	Joseph, Benjamin	Kasturba Medical College, Manipal

Top 2% Researchers' ranking trend of Dr (Prof) Raju Vaishya (Source: Stanford University data)

YEAR	Global Ranking (Orthopaedics)	Indian Ranking (Orthopaedics)
2021	242/1425	02/07
2022	79/1563	01/07
2023	108/1610	02/09

Some distinguished awards



Prestigious Administrative Responsibilities

- President, Arthritis Care Foundation
- Past President & Secretary, Indian Cartilage Society
- Specialist Advisor (Orthopaedics)- Diplomat National Board (India)
- Hon. Lecturer, Edge Hill University, UK
- Research Advisor, Apollo Hospitals Group
- Core committee member, Apollo Research Academy
- Adjunct Professor (Orthopaedics), AHERF

Prof. M. Bajpai
MS, MCh, PhD, FRCS, FACS, FAMS, National Board
Vice President & Hon. Executive Director
Fulbright Scholar (USA), Commonwealth Fellow (UK)
& Raja Ramanna Fellow (Science & Technology)



आयुर्विज्ञान में
राष्ट्रीय परीक्षा बोर्ड
स्वास्थ्य एवं परिवार कल्याण मंत्रालय, भारत सरकार
**National Board of Examinations
in Medical Sciences**
Ministry of Health & Family Welfare, Government of India

Ref.No: NBEMS/EDO/2022/२३१२

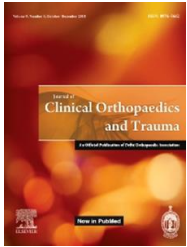
Dated: 31.01.2022

Sub: Constitution of Specialist Board in discipline of Orthopaedics - reg

Dear Sir/Madam,

I am pleased to inform you that the NBEMS has constituted a Specialist Board in various specialities of DNB/DrNB/FNB Programmes and your name has been nominated in the Specialist Board of **Orthopaedics** as a **Member**.

Editorial Responsibilities

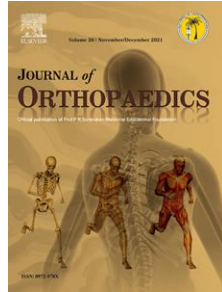


EIC

Journal of
Clinical
Orthopaedics
and Trauma



2018-
2021



EIC

Journal of
Orthopaedics

2019-2021

2021-2023



EIC

Apollo Medicine

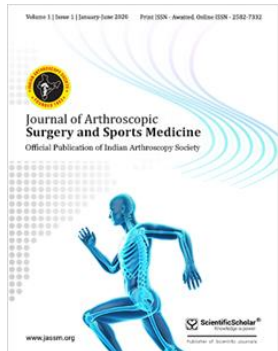


2022-2023

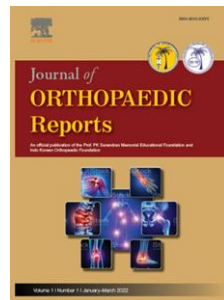
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Founder EIC
Journal of
Orthopaedic
Reports

Prof. P.
Gopinathan



Prof.
Marius
Scarlat



Prof.
Anoop
Misra



Indian Journal of Orthopaedics
International Orthopaedics (SICOT)
Annals of African Journal of Surgery
Journal of Bone & Joint Disease
Diabetes Metabolic Syndrome: Clinical
Research & Reviews
Scientific Reports (Nature)



Research Collaboration



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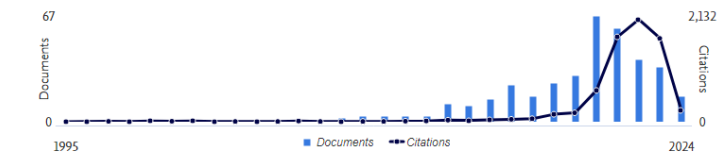
Vaishya, Raju

[Indraprastha Apollo Hospitals, New Delhi, India](#) [6602902951](#) <https://orcid.org/0000-0002-9577-9533> [View more](#)

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Document & citation trends



[Analyze author output](#) [Citation overview](#)

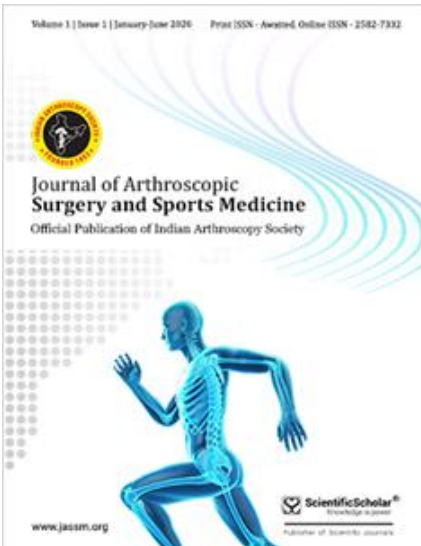
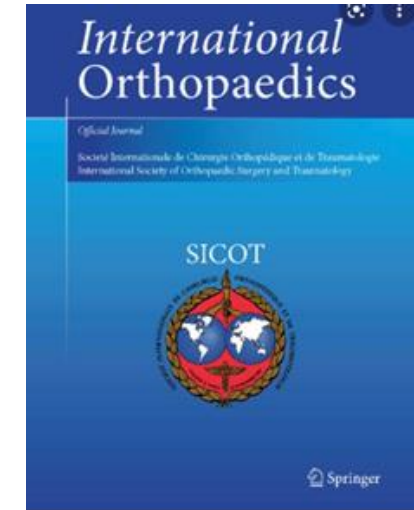
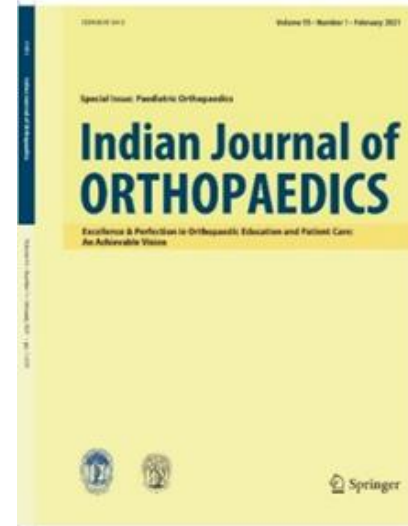
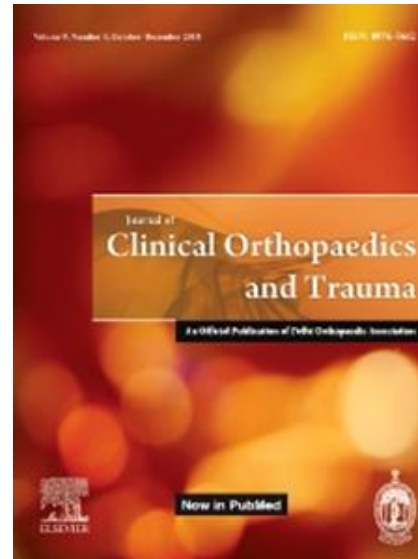
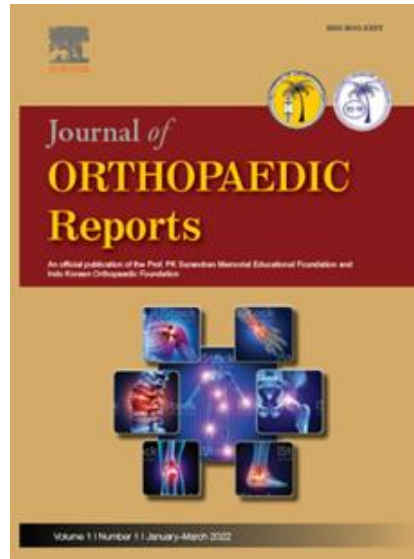
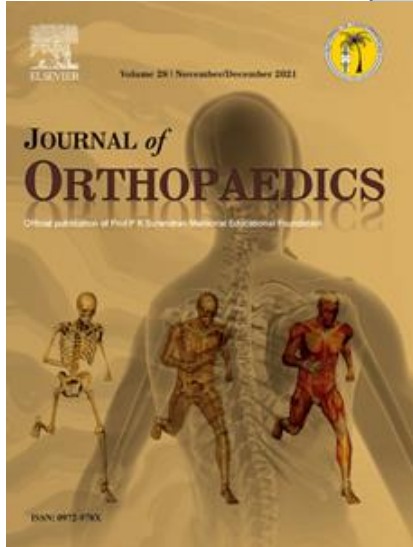
Most contributed Topics 2018–2022

- Hip Fractures; General Surgery; COVID-19**
24 documents
- Healthcare; Internet of Medical Things (IoMT); COVID-19**
21 documents
- Biomechanics; Thighs; Collateral Ligaments**
10 documents

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My Editorial Associations



Motivations



Research Contributions and Standing



Raju Vaishya [Edit](#)

MBBS, MS, MCh (L'pool), FRCS (Lon), FACS (USA) · Professor and Senior Consultant at Indraprastha Apollo Hospitals

New Delhi, NCT, India | [Website](#)

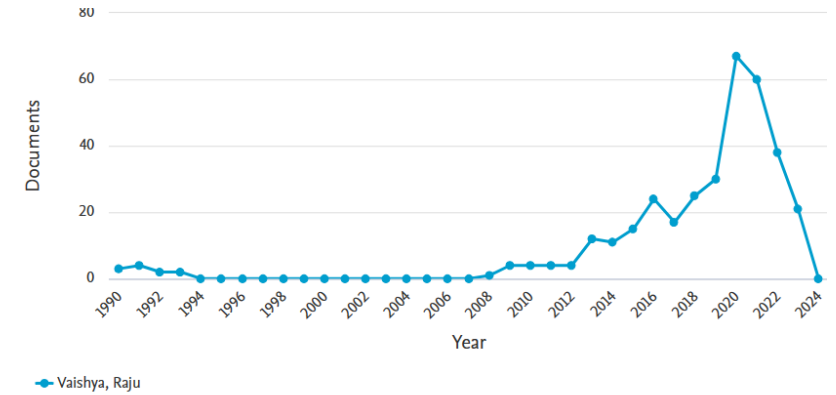
99 Sr. Consultant Orthopaedic Surgeon Editor in Chief-Apollo Medicine EBM: Int.Orthop, IJO, JCOT, DMSCRR, JOO, JOREP, JASSM

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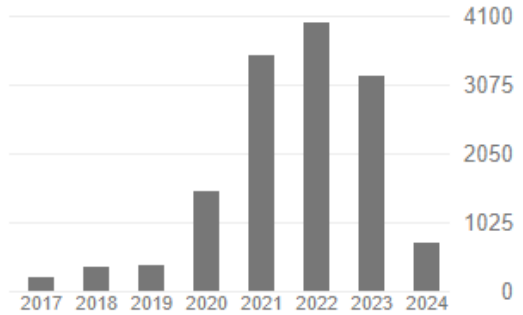
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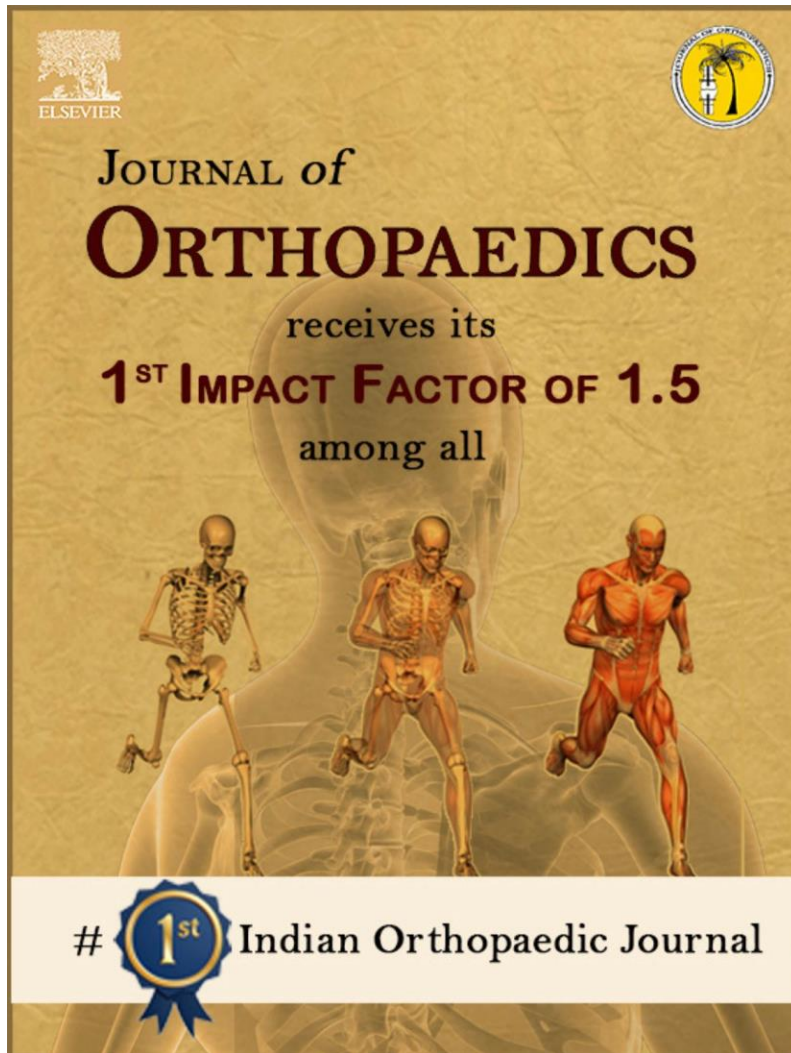
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<input type="checkbox"/>	SARS-CoV-2 B. 1.617. 2 Delta variant replication and immune evasion P Micochova, SA Kemp, MS Dhar, G Papa, B Meng, IATM Ferreira, R Datir, ... Nature 599 (7883), 114-119	1180	2021
<input type="checkbox"/>	Effects of COVID-19 pandemic in daily life A Haleem, M Javaid, R Vaishya Current medicine research and practice 10 (2), 78	1135	2020
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Satisfying Editorial Achievements



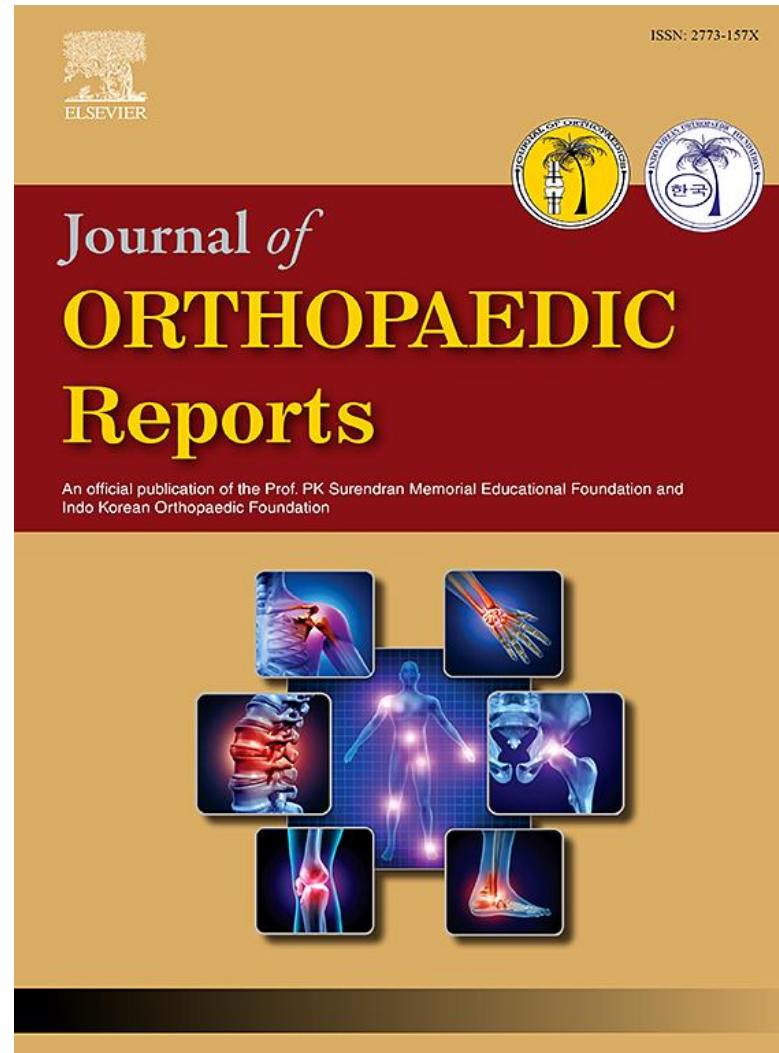
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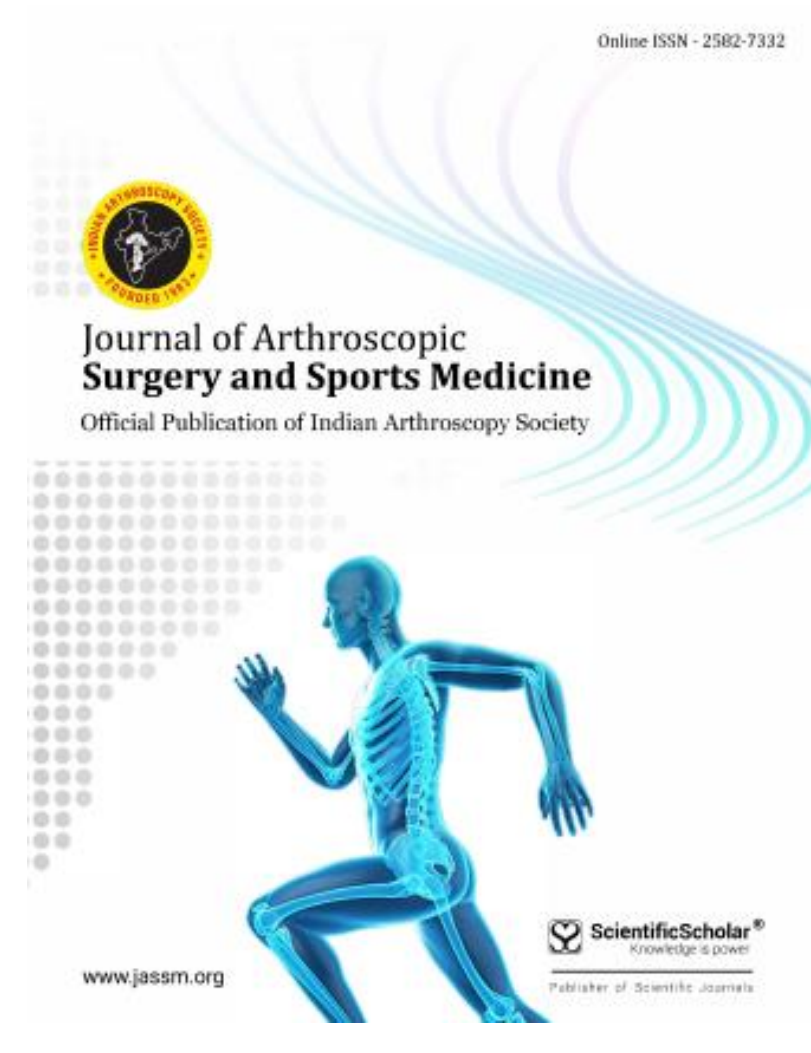



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My Nepalese Research Connections

~25 Fellows
~10 Hospital visits

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Current Research Scenario of Nepal

- **Strengths**

- Focus on Public Health
- Growing Research Infrastructure
- International Collaboration

- **Challenges**

- Limited Funding
- Brain drain
- Translating research findings into practical solutions

A Glimpse of Research Output from Nepal and the Way Forward

Raju Vaishya¹

¹Indraprastha Apollo Hospitals, Sarita Vihar, New Delhi, India.

Nepal is a developing country, which ranks 165th in the world and is considered the Lower-Middle-Income-Country (LMIC). It is one of the ten least urbanized, but the 10th fastest urbanizing country, globally. A substantial population of it lives in urban areas.¹ There has been a recent surge in Non-communicable diseases (NCDs) as the main public health concern and account for more than 2/3rd of total mortality in the country. In rural areas, there is an increased risk of infections and mortality by communicable diseases, malnutrition and other health-related events. Health care services in Nepal are not adequate and fail to meet the international standards, currently. Moreover, the prevalence of diseases is significantly higher in Nepal than in other South Asian countries, especially in the rural areas.²⁻⁴

Hence, it is crucial that the research output from LIC and LMIC is substantially increased to address their local health-related issues, cost-effectively and need not depend on the recommendations coming out of the research from HIC, which may not be affordable and applicable to the population of these countries.⁵

Research output from Nepal

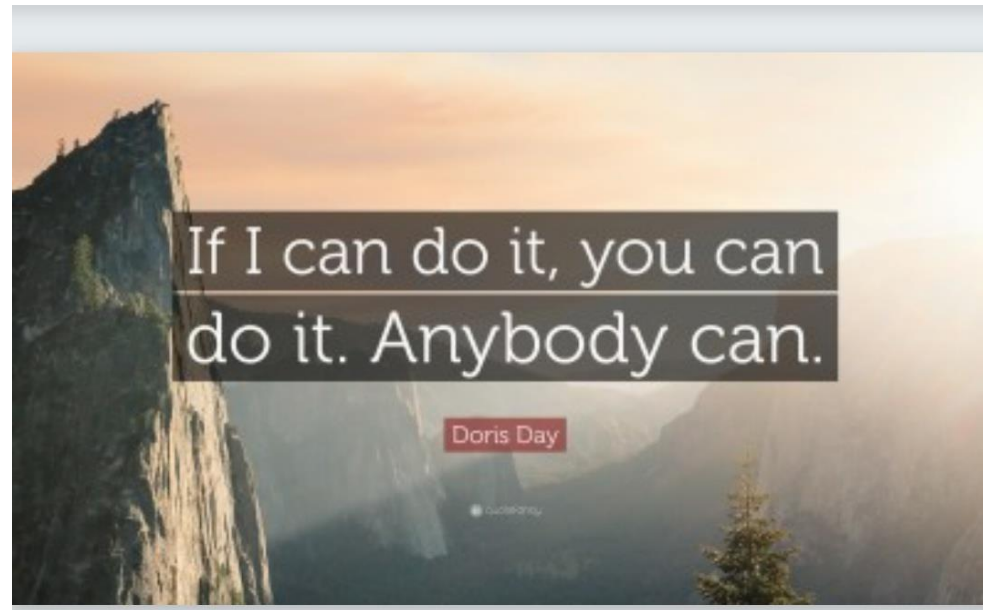
We studied the research output of Nepal from 1996 to 2022, using Scopus data from the SCImago website.⁷ We collected the data related to all subjects (medical and non-medical), all medical subjects, and orthopaedics and sports medicine, and tabulated the important country's research metrics in Table 1. The following observations are made:

Table 3. Challenges identified for repatriation of biomedical researchers of Low-Middle-Income-Countries (LMICs). (Adapted from Ahmed et al.¹⁰)

NEEDS	CHALLENGES
Mentorship	Limited available mentorship in LMICs. Few mentors with advanced research training and expertise
Access to state-of-the-art laboratory technologies and equipment	Largely limited to regional research centres
Advanced training	Commonly needed to be acquired abroad
Career support services	Rare in LMICs because of the limited capacity of local institutions
Global engagement with peers and colleagues.	Limited to national and subnational meetings because of a paucity of funds to participate in international conferences
Acquisition of new techniques for personal growth and capacity building after repatriation	Limited to local or regional opportunities because of cost barriers
Access to up-to-date information	Very limited with few institutional routes of access (e.g., database access)
Funding and research support	Challenging because of the paucity of local funding and high competition for international funding opportunities

Message to the Future budding Scientists of Nepal

- Embrace the challenges
- Never lose sight of your passion
- Collaboration is key
- Leverage the power of research



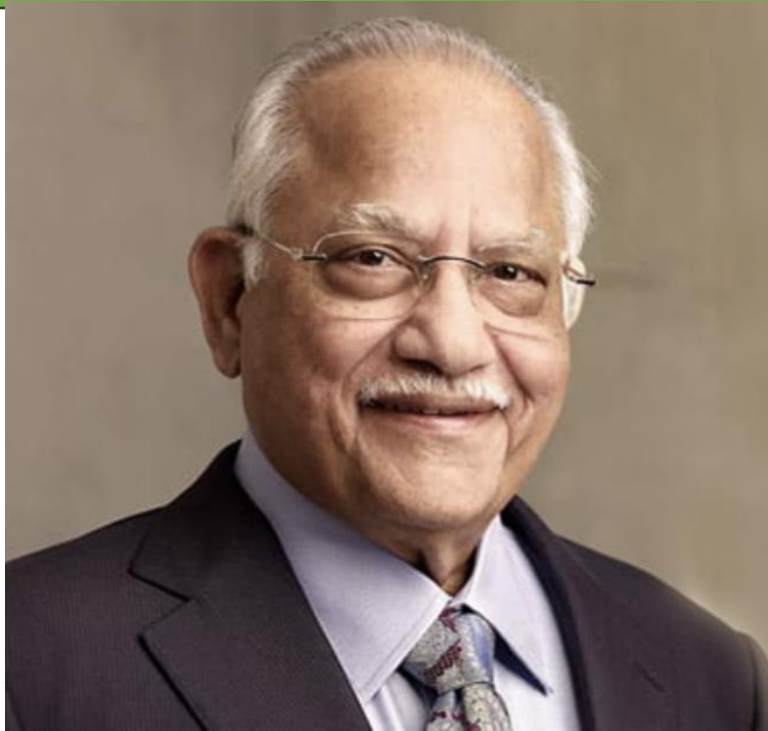
Mantras for Success

- * Passion
- * Positivity
- * Perseverance

Thanks



My Family



Dr. PC Reddy
Chairman, Apollo Hospitals Group



My Patients & Research
collaborators