Sir H. N. Reliance Foundation Hospital and Research Centre,
Mumbai

About Us - Sir H. N. Reliance Foundation Hospital and Research Centre is a 345-bed, world class multi-Speciality tertiary care hospital with following thrust areas: Cardiac Sciences, Orthopaedics & Spine, Gastroenterology & Hepatobiliary Sciences, Liver Transplant, Nephro-Urology, Neuro Sciences, Oncology, Woman & Child Health. The Hospital has progressive diagnostic services, including Laboratories, Radiology & Imaging, and Nuclear Medicine with state of the art equipment.

This is a technologically-advanced institution designed to international standards and the most stringent criteria in infrastructure, medical care, fire-safety norms, and environmental guidelines. This is because every element that comprises The Hospital's making, from the premises, to the processes, to its professionals, contributes to the overriding principle:

Respect for Life.

From its foundation in 1918, Sir Hurkisondas Nurrotumdas Hospital and Research Centre was at the forefront of cutting-edge technology. Many noted freedom fighters, politicians, philanthropists and doctors patronised the hospital, including Mahatma Gandhi, Sardar Vallabhbhai Patel, and Lok Nayak Jayaprakash Narayan.

Sir H. N. Reliance Foundation Hospital and Research Centre carries forward Sir Hurkisondas' legacy of excellence in care and service to all. The Hospital's values define the delivery of this commitment, realised through action and constant application. Today our hospital has been awarded one of the best hospitals in India by many premier organisations.

Chairperson's Message:

"When we set out to build a hospital that offers world-class patient care,
there were a number of questions we asked ourselves:
How will we be different from other hospitals?
How do we make the best healthcare practices accessible to all?
How do we ensure that our patients are treated with dignity?
And without a hint of hesitation, without a doubt in our minds, we answered.
Sir H. N. Reliance Foundation Hospital and Research Centre
will not just be a hospital, but an institution of care.
Where words like 'religion', 'caste',
'social strata', 'age' and 'gender' will be just that - mere words - and not
interfere with the kind of treatment our patients receive.
Where quality will meet affordability.
Where we won't just treat health, we will respect life." – **Nita M. Ambani – Founder & Chairperson**

Sir H. N. Reliance Foundation Hospital
RESPECT FOR LIFE

Fellowship in Cardiothoracic-vascular Imaging:

Aim of the Course: Primary objectives: The fellow must acquire a working knowledge of the theoretical basis of the specialty, including its foundations in the basic medical sciences and research.

Fellow must demonstrate the requisite knowledge, skills, and attitudes for effective patient-centered care and service to a diverse population.
Secondary objectives: To be able to participate and contribute effectively to research projects initiated by experienced colleagues and/or to initiate research - Increase the research output. The

Fellow is encouraged to complete a project and at least one publication during the year.

Name(s) of the department offering the course:

Department of Radiology and Imaging Sciences in collaboration with Dept. of Cardiology and Department of Pulmonology, Sir HN Reliance Foundation hospital and Research centre

Department equipment: Our department is equipped with most advanced and versatile 'state of the art' equipment system

We are equipped with - Two 3.0T MRI machine, 0.55T High V MRI for sports and implant imaging, 1.2T High field open MRI, one Dual source dual energy 384 slice scanner, one 256 slice dual energy CT scanner, 30 USG machines, IITV, C-arm , Digital X-ray equipment

Duration of the course: *Six months*

Intake: 1 seat per batch

***Course fee**: A non-refundable course fee of Rs. 1 lakh will be collected at the beginning of the course.*

***Stipend:** A fix sum of Rs. 60000/ pm and hospital accommodation will be provided during the course.*

***Course Director:** Dr Himanshu Choudhury*

***Faculty:** Dr Bhujang Pai, Dr Himanshu Choudhury, Dr Somesh Lala , Dr Asif Momin, Dr Chander Lulla, Dr Maulik Parekh (Consultant Cardiologist) , Dr Talha Meeran (Consultant cardiologist)*

Knowledge and skills required for admission to the Course

Entry criteria: *MD / DNB in Radiology. Preference will be given to those who have worked in a teaching institute or tertiary centre.*

Selection will be based on a multiple choice questions, entrance exam, and interview.

Competencies:

- *Patient Care*
- *Medical Knowledge*
- *Practice-Based Learning & Improvements*
- *Interpersonal & Communication Skills · Professionalism*
- *System-Based Practice*

Responsibilities:

a. Protocoling, monitoring and interpreting Chest radiographs, arterial and venous colour Doppler study, adult and Pediatric cardiac CT and MRI, TAVER protocol, PPVI protocol, Heart-lung transplant imaging, HRCT lung, pulmonary angiography upper and lower limb peripheral angiography under faculty supervision.

b. Protocoling and performing patient procedures, including Cardiac CT, MRI, all peripheral angiography and CT guided lung or mediastinal lesion biopsies under faculty supervision.

c. Performing colour Doppler study examinations and presenting the findings to the attending for review during the scheduled postings.

d. Preparing interdisciplinary conferences. Consulting with referring physicians.

e. Effectively communicating study results by timely signing of reports and

appropriate direct communication.

f. Basic training of the 2D echocardiography and Catheter coronary angiography under cardiologist supervision to understand clinical need of imaging

Publications and Presentations:

***** Complete at least one original research project as principal author with the purpose

of preparation of a manuscript suitable for publication in a peer-reviewed journal

***** Present academic work at local, national or international scientific meetings

* Preparation of a formal weekly lecture on a topic to be presented to the department

and undergo formal assessment

* Teach diagnostic radiology residents as well as residents from other clinical services

and medical students

Method of evaluation:

Formative assessment:

- The fellow will undergo initial fully supervised rotation in each modality and will undertake independent role after assessment from the concerned faculty. The level of supervision will be tapered according to the experience and confidence gained.

- Formal assessment should be done by faculty and fellowship supervisor every 3 monthly

Summative assessment (at the end of course):

- The Fellow is expected to maintain a log book of interesting cases reported and total number of cases during each modality rotation

-A theory and practical exam will be conducted at the end of the course as an exit exam with one internal and one external examiner from India.

- Patient care Medical Knowledge Professionalism Practice – based learning System- based practice Ability to work as health care team Medical record keeping/Documentation Leadership Qualities Interpersonal and communication skills, Participation in department programme, Log book, Achievements during the period under review

CERTIFICATION:

- CME ATTENDED -
- CONFERENCES ATTENDED –
- GUEST LECTURES ATTENDED –

(OBTAINED DURING THE ABOVE PROGRAMME)

Structured format of the fellowship programme:

I. TITLE OF THE COURSE: FELLOWSHIP IN CARDIOTHORACIC AND VASCULAR IMAGING

The Fellow will have rotation in the following areas:

Radiography	*1 month*
Doppler Ultrasound imaging / 2D echocardiography	*1Month*
Cardiac CT /MRI imaging and CT guided interventions	*3 Month*
Elective	*1 month*

SYLLABUS FOR THORACIC IMAGING

• Benign and Malignant Neoplasms of the Thorax

*** Lung Neoplasms:**

- Staging system update for lung cancer
- Standard treatment regimens

*** Mediastinal tumors**

* Esophageal cancer
* Lymphoma
* Thoracic sarcomas

Trachea

- Tracheal neoplasms
- Tracheal stenosis
- Benign tracheal diseases
- Tracheobronchomalacia

• Interstitial Lung Disease

• Emphysema

• Airways Disease

- Broncholithiasis
- Large airways disease
- Small airways disease

• Pleural Disease

- Pleural effusion
- Pleural infection
- Pleural Tumors/Masses
- Pneumothorax, Hemothorax, Chylothorax

• Mediastinal Disease including various tumors, infective, inflammatory pathologies
• Infections of the Lung, Mediastinum and Pleura
• Imaging in the Immunocompromised Patient
• Pulmonary Vascular Diseases
• Occupational Lung Disease
• Critical Care/Intensive Care Unit Imaging
• Drug and Radiation Induced Diseases of the Lung
• Immunologic and Miscellaneous Diseases, including pulmonary manifestations of

connective tissue diseases and amyloidosis
• Congenital Diseases of the Thorax
• Thoracic Trauma
• Transplant Imaging, including BMT and its complications
• Post Operative Chest
• Thoracic Positron Emission Tomography (PET)
in imaging of malignancy, inflammatory diseases

• Thoracic Magnetic Resonance Imaging (MRI)

- Mediastinal mass evaluation
- Pleural evaluation: pleural mass, mesothelioma, diaphragm and chest wall invasion
- Hilar evaluation
- Chest wall evaluation

SYLLABUS FOR CARDIOVASCULAR IMAGING

Anatomy - Segmental Cardiac Anatomy, coronary artery segments, cardiac veins, peripheral arterial and venous Doppler stud

anatomy

Cardiac MRI

- Cardiac MRI physics, MR safety aspects
- Technique
- Cardiomyopathies
- Ischemic heart disease – including viability imaging
- Congenital heart disease
- Pulmonary artery and aorta – congenital and acquired conditions
- Post surgical repair of congenital heart disease
- Valvular heart disease
- Cardiac tumour and tumour mimics
- Pericardial diseases

Cardiac CT

- Technique
- Coronary artery calcium scoring – for risk stratification
- Congenital heart disease
- Pulmonary vein mapping – pre and post ablation, anomalous pulmonary venous
- drainage assessment
- Thrombus evaluation
- TAVI
- Cardiac tumors
- Pericardial disease
- Valvular heart disease
- Vascular Imaging
- CT angiogram and MR angiogram