

## **PATHOLOGY RESEARCH DIVISION**



**Dr. Kyaw Soe**  
**MBBS(IM 1), PhD(Medical Science, Nagasaki)**

### **1. Historical Background**

Pathology Research Division was established on 2nd October 1972 and the Electron Microscope Laboratory was actively engaged for pathology and immunological research in renal diseases, malaria, hepatitis and Russell viper venom from 1972 to 1989. The first appointed Head of the Pathology Research Division was Dr. Aung Khin. This division has actively participated in the immunological, histopathological, epidemiological, molecular studies of malaria research projects from 1990 to 1998 and was also involved in haematological research mainly for thalassaemia disease, G6PD deficiency, haemoglobinopathies and coagulation disorders. All of the cancer research was based on histopathology, immunohistochemistry (IHC), insitu-hybridization, apoptosis (TUNEL) method, western blot assay and advanced molecular polymerase chain reaction (PCR). This division has also performed protein analysis and detection of chromosome abnormalities by using immunophenotyping and karyotyping method and has determined the histopathological findings of acute and sub-acute toxicity tests in tissues of laboratory animals for traditional medicine research projects. The Pathology Research Division is currently engaged in haemoglobinopathies, alpha and beta thalassaemia, G6PD enzyme deficiency and coagulation profile research. Carcinogenic and cytotoxic process of liver, gastric, breast and oral tissues were also determined. This division also performs gender verification (International Myanmar athletes and neonates with ambiguous sex), karyotyping of chromosomal abnormalities of human and animal subjects. The division has involved in genotypic identification and genetic mutations of beta thalassaemia carriers by using Single Strand Conformation Polymorphism (SSCP-PCR) and insulin receptor resistance gene mutation in type 2 diabetes mellitus by using Restriction Fragment Link Polymorphism (RFLP- PCR) method. The Division is actively engaged in research on chromosomal disorders and association of aflatoxin B1 with liver disease. Moreover, research projects on common cancers, particularly carcinogenic, cellular kinetic changes and epigenetic alterations of liver, breast, gastrointestinal, oral, nasopharyngeal and cervical cancer were studied by immunohistochemistry (IHC) and fluorescence in-situ hybridization (FISH). The division also performs ultrastructural analysis of infection carrying vector by electron microscopy.

## 2. Former Heads

Sr. No.	Name	Degree	Year (From-To)
1.	Dr. Aung Khin	MBBS (Rgn), PhD (Liverpool)	1972-1979
2.	Dr. Than Than	MBBS (Mdy), DCP (London), DPath (UK), PhD (Glasgow)	1979-1989
3.	Dr. Maung Maung Oo	MBBS, DPath (Ygn)	1989-1993
4.	Dr. Soe Soe	MBBS, DPath (Ygn), PhD (Paris)	1993-2001
5.	Dr. Ne Win	MBBS, MMedSc (Pathology) PhD	2001-2007
6.	Dr. Moh Moh Htun	MBBS, MMedSc (Pathology) PhD	2007- 2015
7.	Dr. Kyaw Soe	MBBS (IM1), PhD (Nagasaki)	2015-2018

## 3. Current Staff

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## 4. Area of Research Activities

No.	Area of Research Activities	Choice
1.	Communicable Diseases	√
2.	Non-Communicable Diseases	√

3.	Nutritional Factor	
4.	Research Capacity Strengthening	
5.	Health System Research	
6.	Environmental Health	
7.	Traditional Medicine	
8.	Research Culture Promoting	
9.	Technology Development	