

The 123rd Annual Congress of Japan Surgical Society

Theme : -Higher and Further Together-

Congress President : Takao Ohki

(Dept of Surgery, The Jikei Univ School of Medicine)

English Papers

1. International Lecture

April 27th (Thu.) 10 : 30-11 : 00 Room 4 (International Convention Center PAMIR 3F HAKUUN)

Chairperson : Tokai Univ School of Medicine **Masaki Mori**

IL-1 The changing paradigm of surgical education

The Alvin J. Siteman Cancer Center ; Barnes-Jewish Hosp ;

Washington Univ Medical Center **Timothy J. Eberlein**

April 28th (Fri.) 15 : 40-16 : 10 Room 7 (International Convention Center PAMIR 2F MATSUBA)

Chairperson : Showa Univ School of Medicine, Dept of Surgery,

Div of Breast Surgical Oncology **Seigo Nakamura**

IL-2 Transforming breast healthcare in India - Celebrating 15 positively eventful years!

KIMS-USHALAKSHMI Centre for Breast Diseases, KIMS Hosp **Raghu Ram Pillarisetti**

2. ACS Presidential Lecture

April 27th (Thu.) 10 : 00-10 : 30 Room 4 (International Convention Center PAMIR 3F HAKUUN)

Chairperson : Kyushu Central Hosp of the Mutual Aid Association

of Public School Teachers **Yoshihiko Maehara**

ACS Innovation in surgery

The Ohio State Univ **E. Christopher Ellison**

3. SUS Presidential Lecture

April 28th (Fri.) 16 : 10-16 : 40 Room 7 (International Convention Center PAMIR 2F MATSUBA)

Chairperson : International Univ of Health and Welfare Narita Hosp **Masaru Miyazaki**

SUS Irreversible Electroporation (IRE) as in situ vaccine therapy for pancreatic cancer

Univ of California San Diego **Rebekah White**

4. COSECSA Presidential Lecture

April 28th (Fri.) 15 : 10-15 : 40 Room 7 (International Convention Center PAMIR 2F MATSUBA)
Chairperson : Dept of Cardiovascular Surgery, Kyoto Univ **Kenji Minatoya**

COSECSA Dealing with clinically advanced surgical disease in LMIC : A challenge to the Clinician.
A look at Cushing's syndrome in Uganda : Factors causing late presentation
Mulago National Referral Hosp ;
Makerere Univ College of Health Sciences **Fualal Jane Odubu**

5. ASI Presidential Lecture

April 27th (Fri.) 16 : 40-17 : 10 Room 7 (International Convention Center PAMIR 2F MATSUBA)
Chairperson : Div of Digestive and General Surgery, Niigata Univ Graduate School
of Medical and Dental Sciences **Toshifumi Wakai**

ASI Surgical challenges in resource limited countries
Gandhi Medical College **Sanjay Kumar Jain**

6. Symposium

SY-01 Individualization of surgical procedure for upper advanced gastric cancer

April 27th (Thu.) 15 : 10-17 : 10 Room 2 (International Convention Center PAMIR 3F KOUN)
Chairpersons : Div of Gastrointestinal-Pediatric Surgery, Tottori Univ **Yoshiyuki Fujiwara**
Dept of Gastrointestinal Surgery Nagoya City Univ **Shuji Takiguch**

SY-01-1 Laparoscopic/Robotic spleen-preserving No.10 dissection for proximal advanced gastric cancer : Our clinical experiences and the perspectives
Gastric Surgery Div, National Cancer Center Hosp East **Takahiro Kinoshita**

SY-01-2 Our personalization to upper advanced gastric cancer in laparoscopic/robotic surgery
Dept Surgery, IUHW Hosp **Hironori Ohdaira**

SY-01-3 Is prophylactic splenectomy necessary for proximal advanced gastric cancer invading the greater curvature with clinically negative splenic hilar lymph node metastasis? A multi-institutional cohort study (YCOG2003)
Dept of Surgery, Yokohama City Univ Gastroenterological Center **Sho Sato**

SY-01-4 Less invasive gastrectomy in elderly patients
Dept of Surgery, Kobe City Medical Center General Hosp **Masato Kondo**

SY-01-5 Utility of robotic surgery for Siewert type II/III adenocarcinoma of esophagogastric junction : Transhiatal robotic versus laparoscopic approach
Dept of Surgery, Tokushima Univ **Masaaki Nishi**

SY-01-6 Proximal gastrectomy for advanced upper-third gastric cancer -oncological validity-
Dept of Gastroenterological Surgery, Toranomon Hosp **Hayato Shimoyama**

- SY-01-7 The strategy of robotic gastric preserving surgery for advanced upper gastric cancer
Dept of Gastroenterological Surgery, Nagoya City Univ **Sunao Ito**
- SY-02 **How we can indicate and perform challenging surgical procedures for advanced rectal cancer. (ISR, TaTME, LLND, TPE)**
April 27th (Thu.) 15 : 10-17 : 10 Room 3 (International Convention Center PAMIR 3F SUIUN)
Chairpersons : Div of Lower GI, Dept of Gastroenterological Surgery,
Hyogo Medical Univ, School of Medicine **Masataka Ikeda**
Div of Surgical Oncology, Dept of Surgery, Nagoya Univ **Kay Uehara**
- SY-02-1 Robot-assisted TME and taTME for lower rectal cancer : Nerve-guided approaches and short-term results
Gastroenterological Center, Yokohama City Univ Medical Center **Yusuke Suwa**
- SY-02-2 Benefit of Trans-anal TME in rectal surgery
Dept of Colorectal Surgery, National Cancer Center Hosp East **Yuichiro Tsukada**
- SY-02-3 Methods and Short-term Outcomes of Robot-assisted Multivisceral resection/TPE for Rectal Cancer : A Strategy for Standardization
Dept of Gastrointestinal Surgery, Tokyo Medical and Dental Univ **Marie Hanaoka**
- SY-02-4 Robotic versus laparoscopic approach for minimally invasive lateral pelvic lymph node dissection of advanced lower rectal cancer
Dept of Gastrointestinal and Pediatric Surgery, Tokyo Medical Univ **Tetsuo Ishizaki**
- SY-02-5 Standardized technique and clinical outcomes of transanal lateral pelvic lymph node dissection
Dept of Surgery, Kobe Univ **Takeru Matsuda**
- SY-02-6 Lateral lymph node dissection for locally recurrent rectal cancer
Dept of Gastroenterological Surgery, Div of Lower G. I., Hyogo Medical Univ **Kei Kimura**
- SY-02-7 Current status of laparoscopic total pelvic exenteration for locally advanced or recurrent rectal cancer
Dept of Gastroenterological Surgery, Osaka Univ **Mamoru Uemura**
- SY-09 **Optimal surgical treatment of aortic arch aneurysm to improve long-term outcomes**
April 28th (Fri.) 15 : 10-17 : 10 Room 5 (International Convention Center PAMIR 3F KEIUN)
Chairpersons : Dept of Cardiovascular Surgery Morinomiya Hosp **Masaaki Kato**
Div of Cardiovascular Surgery,
Tohoku Univ Graduate School of Medicine **Yoshikatsu Saiki**
- SY-09-1 Evaluation of Kawasumi Najuta using 3D printing model for aortic arch aneurysm
Dept of Vascular Surgery, International Univ of Health and Welfare Hosp **Makoto Sumi**

- SY-09-2 Safety and efficacy of retrograde in situ branched stent grafting for aortic arch pathology : A single-center experience.
Dept of Thoracic and Cardiovascular Surgery,
Hirosaki Univ Graduate School of Medicine **Yoshiaki Saito**
- SY-09-3 Optimal surgical treatment section for aortic arch aneurysm according to the evaluation of the atheroma grade : Perspective with postoperative MRI study.
Dept of Cardiovascular Surgery, Osaka Univ **Kazuo Shimamura**
- SY-09-4 Clinical results of total arch replacement with FET for acute type A aortic dissection
Dept of Cardiovascular Surgery, Kanazawa Univ **Kenji Iino**
- SY-09-5 Surgical outcome of aortic arch aneurysm for elderly
Dept of Cardiovascular Surgery, Chibanishi Generral Hosp **Yujiro Ito**
- SY-09-6 Total arch replacement is gold standard for aortic arch aneurysm
Kawasaki Aortic Center, Kawasaki Saiwai Hosp **Shigeru Sakurai**

7. Panel Discussion

- PD-14 **How we can indicate and perform minimally invasive surgery for invasive pancreas ductal cancer in the real world.**
April 28th (Fri.) 8 : 00-10 : 00 Room 11 (Grand Prince Hotel Shin Takanawa 3F HEIAN)
Chairpersons : Dept of Surgery, Tohoku Univ **Michiaki Unno**
Dept of Surgery and Oncology
Graduate School of Medical Sciences Kyushu Univ **Masafumi Nakamura**
Special Remarks : Kounandai Hosp **Hiroshi Shimada**
- PD-14-1 Surgical procedure and postoprative outcomes of minimally invasive pancreatrectomy for pancreatic cancer
Dept of GS Surgery, Tokyo Med Univ **Yuichi Nagakawa**
- PD-14-2 Current status and long-term outcomes of minimally invasive distal pancreatectomy for pancreatic body and tail cancer cases
Dept of Surgery, Nagasaki Univ **Hajime Imamura**
- PD-14-3 Non-RAMPS laparoscopic distal pancreatectomy for pancreatic cancer
Dept of Surgery, Tohoku Univ **Masaharu Ishida**
- PD-14-4 Usefulness of Robotic-assisted distal pancreatectomy for pancreatic cancer and introduction of our procedural innovations
Dept of Surgery and Science, Univ of Toyama **Katsuhisa Hirano**

PD-14-5 Laparoscopic pancreatic resection at a single institution : Left-posterior approach in distal pancreatectomy for left-sided pancreatic cancer and pancreatoduodenectomy for tumors in the pancreatic head and periampullary *region*
Dept of Surgery, Kyoto Univ **Kazuyuki Nagai**

PD-14-6 Robot assisted pancreatectomy for invasive pancreatic cancer to achieve R0 resection
Dept of Surgery and Oncology, Kyushu Univ **Kohei Nakata**

8. Workshop

WS-20 **How we can present surgical strategies in liver transplantation as the commonly acceptable treatment of choice in this decade in our country.**

April 29th (Sat.) 10 : 00-12 : 00 Room 4 (International Convention Center PAMIR 3F HAKUUN)

Chairpersons : Div of Gastroenterological, Hepato-Biliary-Pancreatic,
Transplantation and Pediatric Surgery, Dept of Surgery,
Shinshu Univ School of Medicine **Yuji Soejima**
Dept of Hepato-Biliary-Pancreatic and Transplant Surgery,
Fukushima Medical Univ **Shigeru Marubashi**
Special Remarks : ONGA NAKAMA Medical Association **Takashi Kanematsu**

WS-20-1 Experience of Liver transplantation for the patients receiving maintenance renal replacement therapy without continuous hemodiafiltration
Dept of Surgery, Institute of Gastroenterology,
Tokyo Women's Medical Univ **Yoshihito Kotera**

WS-20-2 Liver transplantation for liver disease with preoperative renal dysfunction
Dept of Surgery, Shinshu Univ School of Medicine **Atsuyoshi Mita**

WS-20-3 Liver transplant recipient characteristics associated with worse post-transplant outcomes in using elderly donors
Div of Transplant and Hepatobiliary Surgery, Henry Ford Hosp, USA **Shingo Shimada**

WS-20-4 Results of liver transplantation with preoperative desensitization therapy according to the intensity of donor-specific antibodies
Dept of HBP and Breast Surgery, Ehime Univ **Kohei Ogawa**

WS-20-5 Rituximab desensitization in liver transplant recipients with preformed donor-specific HLA antibodies—A Japanese nationwide survey
Artificial Organ and Transplantation Surgery Div, Dept of Surgery,
Graduate School of Medicine, Univ of Tokyo **Nobuhisa Akamatsu**

WS-20-6 Nationwide survey results of living donor liver transplantation for hepatocellular carcinoma and a phase II study of donor liver-derived NK cell therapy
Dept of Gastroenterological and Transplant Surgery, Hiroshima Univ **Masahiro Ohira**

WS-20-7 Experiences of intra-operative repeated portal vein reconstruction in our hospital
Organ Transplantation Center, National Center
for Child Health and Development, Tokyo, Japan **Ryuji Komine**

WS-20-8 Strategies for safe and effective liver transplantation : Our multidisciplinary approach.
Dept of Surgery, Kyoto Univ **Shinya Okumura**

WS-20-9 Intra-operative aborted LDLT surgeries, lessons from 13,937 cases of Vanguard Multi-
center Study (iLDLT Group)
Dept of Surgery and Science, Kyushu Univ Hosp **Takeo Toshima**

9. Surgical Forum

T : Travel Grant

A : ACS Exchange Traveller

C : COSECSA Traveller

I : ASI Traveller

April 27th (Thu.) 14 : 10-15 : 10 Room 6 (International Convention Center PAMIR 2F AOB)

SF-08-1 Laparoscopic management of varicocele and role of scrotal squeeze to identify the vein
T Dept of Surgery, St. Jude's Hosp, India **Jyoti Chaube**

April 27th (Thu.) 8 : 00-9 : 00 Room 7 (International Convention Center PAMIR 2F MATSUBA)

SF-11-1 Combining TEP with difficult lap cholecystectomy- A surgical dilemma or is it??
T Dept of Gastrointestinal Surgery & Digestive Diseases,
Nepal Medicit Hosp, Nepal **Nirvan Rai**

SF-11-2 IPOM+ in the country of Mount Everest : Our experience after a century of cases!
T Dept of General Surgery and Digestive Diseases,
Nepal Medicit Hosp, Nepal **Subodh Ghimire**

April 27th (Thu.) 9 : 00-10 : 00 Room 7 (International Convention Center PAMIR 2F MATSUBA)

SF-12-1 The role of vitamin D in reducing colorectal cancer mortality
T Institute of Genetics and Cancer, Univ of Edinburgh,
United Kingdom **Peter G Vaughan-Shaw**

SF-13 Exchange Travelers

April 27th (Thu.) 10 : 00–11 : 00 Room 7 (International Convention Center PAMIR 2F MATSUBA)
 Chairperson : Dept of Surgery, Graduate School of Medicine, Tohoku Univ **Takashi Kamei**

SF-13-1 Beyond the knife : Surgical disparities and why it matters

A Dept of Surgery, Univ of Alabama at Birmingham,
 Birmingham, AL, USA **Daniel I-Hsin Chu**

SF-13-2 Measuring the impact of COSECSA on surgical training in Zimbabwe

C Dept of Surgery, Paediatric Surgery Unit,
 Harare Central Hosp, Zimbabwe **Precious Gamuchirai T. Mutambanengwe**

SF-13-3 Short- versus long-course antibiotics in preventing post-operative infectious
 complications in catheterized patients undergoing transurethral resection of prostate. A
 randomized controlled trial

Dept of Urology, Kilimanjaro Christian Medical Univ College,
 Moshi, Tanzania **Orgeness Mbwambo**

SF-13-4 Community- versus hospital-acquired infections in acute care surgery patients in
 Rwanda

Dept of Surgery, Univ of Rwanda, Dept of Surgery,
 Kibagabaga Level II Teaching Hosp, Rwanda **Christophe Mpirimbanyi**

SF-13-5 Carcinoma rectum : Young vs Old in Indian subcontinent -a tertiary cancer institute
 experience

I Dept of Surgical Oncology, Tata Memorial Hosp, India **Reshma R Balachandran**

SF-13-6 Surgical audit and clinical research-Our experience from department of surgical
 oncology in AIIMS Bhubaneswar

Dept of Surgical Oncology, AIIMS Bhubaneswar **Priyanka Saha**

SF-13-7 Tracheal reconstruction

I Dept of General Surgery, Lourdes Hosp, India **Nidhin Punathil Narayanan**

April 27th (Thu.) 15 : 10–16 : 10 Room 7 (International Convention Center PAMIR 2F MATSUBA)

SF-16-8 Does colorectal cancer need to redefine TNM based on T size and extranodal extension in
 nodes? - A pilot study based on 2year

Dept of Pathology, BMCHRC, Jaipur, India **Anjali Sharma**

April 27th (Thu.) 10 : 00–11 : 00 Room 8 (International Convention Center PAMIR 1F ZUIKO)

SF-20-1 Prediction of postoperative major complications in pancreaticoduodenectomy at a
tertiary hospital of Nepal - Prospective comparison of Whipple-ABACUS and Braga
scores
T
Dept of Surgery, Nobel Medical College & Teaching Hosp,
Kathmandu Univ, Nepal **Dhruba Narayan Sah**

SF-20-2 Air leak test - Extending horizon from bowel to pancreatoduodenectomy
T
Dept of Surgical Gastroenterology and Liver Transplantation,
Mahatma Gandhi Medical College and Hosp, India **Maunil Tomar**

SF-20-6 Early versus conventional feeding after pancreaticoduodenectomy
T
Dept of Surgical Gastroenterology,
Hepato-Biliary Surgery & Liver Transplant,
Mahatma Gandhi Medical College and Hosp, India **Vinay Kumar Mahala**

April 27th (Thu.) 16 : 10–17 : 10 Room 8 (International Convention Center PAMIR 1F ZUIKO)

SF-22-1 Pediatric pheochromocytoma and paraganglioma : Experience over three decades in a
tertiary centre in India
T
Sanjay Gandhi Post Graduate Institute of Medical Sciences, India **Vikram Sharanappa**

SF-22-2 Innovative rigid video esophagoscope—A simple tool to extract impacted esophageal
foreign bodies
T
Sanwal Hosp, India **Anil Kumar Sanwal**

April 27th (Thu.) 10 : 00–11 : 00 Room 9 (International Convention Center PAMIR 1F ZUIKO)

SF-23-3 Role of laparoscopic subtotal cholecystectomy in difficult gallstones surgery
T
St.Jude's Hosp, India **Sanjay Chaube**

SF-23-4 CBD exploration—A innovative approach and its significance in primary care hospital
T
Sahu Surgical Care Hosp, India **Mukul Sahu**

SF-23-8 Metagenomic analysis of biliary microbial flora in patients with gallbladder cancer or
gallstones-associated chronic cholecystitis
T
Sharda Univ, India **Ratnakar Shukla**

April 27th (Thu.) 16 : 10–17 : 10 Room 9 (International Convention Center PAMIR 1F ZUIKO)

SF-25-1 A CROSS SECTIONAL STUDY TO CORRELATE CLINICOPATHOLOGICAL
 T FEATURES WITH PDL1, MSI, & TILs IN 100 TRIPPLE NEGATIVE OPERATED
 BREAST CANCER CASES.

Surgicure, India **Paresh Sharma**

April 27th (Thu.) 10 : 00–11 : 00 Room 11 (Grand Prince Hotel Shin Takanawa 3F HEIAN)

SF-26-7 Hydatid disease of liver and its laparoscopic management

T

Dept of Surgery, M.LB.MEDICAL COLLEGE, India **Satendra Kumar**

April 27th (Thu.) 10 : 00–11 : 00 Room 12 (Grand Prince Hotel Shin Takanawa 3F TENPYO)

SF-27-1 Makeshift wound protector for small incision thyroidectomy—Observations from a
 T tertiary centre

Dept of Endocrine Surgery, Maax Superspecialty Hosp, India **Shreyamsa M**

SF-27-4 Routine pre-operative and post-operative supplementation of oral calcium and/or
 T calcitriol is a cost-effective strategy in management of post-thyroidectomy
 hypocalcaemia

Dr Ram Manohar Lohia Institute of Medical Sciences, India **Roma Pradhan**

April 28th (Fri.) 9 : 00–10 : 00 Room 6 (International Convention Center PAMIR 2F AOBA)

SF-34-7 Association of bariatric surgery with the risk of fracture in patients with obesity

T

Czech National Centre for Evidence-Based Healthcare and
 Knowledge Translation, Faculty of Medicine,

Masaryk Univ, India **Mohammad Salman Hussain**

April 28th (Fri.) 9 : 00–10 : 00 Room 7 (International Convention Center PAMIR 2F MATSUBA)

SF-37-7 The need for lateral pelvic lymph node dissection (LPLND) in low rectal cancer with
 T resectable distant metastasis

Dept of Surgery, Queen Savangvadhana

Memorial Hosp, Thailand **Chatiyaporn Manomayagoon**

SF-37-8 How robotic surgery and three-dimensional (3D) printing has revolutionized the management and outcomes of pelvic tumours
T Dept of Musculoskeletal Oncology, HCG Hosp, India **Suraj Hindiskere**

April 28th (Fri.) 10 : 00-11 : 00 Room 7 (International Convention Center PAMIR 2F MATSUBA)

SF-38-1 Role of minimally invasive surgery in hollow viscous perforation induced peritonitis
T Dept of Surgery, M.LB.MEDICAL COLLEGE, India **Suryaprakash Kumar**

SF-38-2 Role of laparoscopic management in malfunctional peritoneal dialysis catheter
T Prof. Dept of Surgery MLB Medical College, India **Manish Jain**

April 28th (Fri.) 13 : 10-14 : 10 Room 7 (International Convention Center PAMIR 2F MATSUBA)

SF-39-1 Effects of a frozen elephant trunk on postoperative renal dysfunction in acute type A aortic dissection extending into the renal artery—A single centre experience
T PMCH, India **Jaspreet Kaur**

April 28th (Fri.) 8 : 00-9 : 00 Room 8 (International Convention Center PAMIR 1F ZUIKO)

SF-41-1 Liver hypertrophy after parenchyma-sparing major hepatectomy & standard major hepatectomy in the setting of colorectal liver metastases : A comparative multicenter study
T Hepato Biliary Surgery, Cancer and Transplantation Unit, AP-HP Paul Brousse Hosp, Univ Paris-Saclay, Villejuif, France **Pio Corleone**

April 28th (Fri.) 10 : 00-11 : 00 Room 8 (International Convention Center PAMIR 1F ZUIKO)

SF-43-1 When elective intensive care unit admission is necessary after hepatectomy?
T *Development and validation of a nomogram for predicting major complications after hepatectomy*
Div of Hepatobiliary & General Surgery, Dept of Surgery, Humanitas Research Hosp - IRCCS, Humanitas Univ, Italy **Jacopo Galvanin**

April 28th (Fri.) 16 : 10-17 : 10 Room 8 (International Convention Center PAMIR 1F ZUIKO)

SF-47-8 Role and result of hybrid approach in obstructed ventral hernias
T Dept of Surgery, M.LB.MEDICAL COLLEGE, India **Shantanu Mishra**

April 28th (Fri) 10 : 00-11 : 00 Room 10 (International Convention Center PAMIR 1F GYOKO)

SF-49-1 ERAS program in liver surgery : Adherence in a single western center experience and factors associated with drop-out

T

HPB Surgery Dept - San Gerardo Hosp Monza (MB) -

Univ of Milano-Bicocca, Italy **Cristina Ciulli**

SF-49-2 “The silent invader who ruined the harmony of a surgical team” an audit on laparoscopic portsite and mesh infections during a short term period from a peripheral centre

T

Dept of General and Minimal Access Surgery,

Matha Hosp, India **Bibin Polakkattil Mathew**

SF-49-3 Detailed cost-analysis of in-hospital patients with type III intestinal failure. A single centre study with global implication.

T

Surgical Outcomes Research Centre (SOuRCe),

Faculty of Medicine and Health, Univ of Sydney, Australia **Adrian Siu**

April 28th (Fri) 10 : 00-11 : 00 Room 11 (Grand Prince Hotel Shin Takanawa 3F HEIAN)

SF-50-8 Immunomodulatory cell induction for tolerance state after pancreatic islet transplantation

T

Dept of Gastroenterological Surgery I,

Hokkaido Univ Graduate School of Medicine, Argentina **Agustina Forgioni**

April 29th (Sat) 15 : 20-16 : 20 Room 6 (International Convention Center PAMIR 2F AOBA)

SF-55-2 Impact of anatomical vs. non anatomical liver resection in multiple HCC

T

Dept of Surgery, Oncology and Gastroenterology, Hepatobiliary Surgery and

Liver Transplantation Unit, Padova Univ Hosp, Padua, Italy, Italy **Marco Colella**

April 29th (Sat) 10 : 00-11 : 00 Room 12 (Grand Prince Hotel Shin Takanawa 3F TENPYO)

SF-69-1 Breast cancer detection, screening, and treatments among patients attending TWO leading cancer hospitals in Bangladesh

T

Dept of Biochemistry and Molecular Biology,

Mawlana Bhashani Science and Technology Univ, Bangladesh **Mst. Mahmuda Khatun**

SF-69-2 Comparison of animation video versus simulation techniques for breast self-examination among North Indian women

T

SGPGIMS, India **Sarah Idrees**

SF-69-3 Trends and reasons of referral of benign breast disease patients in a tertiary referral
T medical centre in a developing country.

Sanjay Gandhi Postgraduate Institute of Medical Sciences, India **Sushobhan Pradhan**