Welcome Message

Dear Colleagues,

On behalf of the Gastroenterological Society of Taiwan, I am proud and honored to welcome you all to Asian-Pacific Digestive Week (APDW) 2015, and to my home city, Taipei!

Over the years, APDW has become established as the largest and pre-eminent platform in the Asia-Pacific region for the exchange of ideas, continuing education, and presentation of new research in the fields of Gastroenterology, Hepatology, Gastrointestinal Diseases, Endoscopy and Gastrointestinal Surgery. APDW 2015 was jointly organized by the Gastroenterological Society of Taiwan, the Digestive Endoscopy Society of Taiwan, Taiwan Surgical Society of Gastroenterology, and Taiwan Association for the Study of the Liver, which have common interests in basic research and clinical practice in the field of digestive diseases.

The theme of this year’s meeting is ‘Advances in Digestive Medicine’ and during the next three days, we are privileged to host a multi-talented and eminent faculty of experts from the Asia-Pacific region, Europe and North America, who will share and explain cutting-edge progress in research and clinical practice at the forefront of hepatology and gastroenterology. But every single delegate has a valuable contribution to make to APDW 2015 – be sure to take advantage of the wonderful opportunities this congress offers to ask questions, debate controversies, and network with your peers.

And what better forum could there be for renewing old acquaintances and making new friends? I hope that you all enjoy the energy and beauty of Taipei and Taiwan, and will find APDW 2015 a truly memorable and inspiring event!

Jau-Town Lin
President
Asian-Pacific Digestive Week 2015
President
The Gastroenterological Society of Taiwan
Professor Emeritus
Department of Internal Medicine
College of Medicine, National Taiwan University, Taipei, Taiwan

Launching at APDW 2015, the Virtual Training Institute will empower healthcare providers with peer-to-peer procedural training via an intuitive and secure internet-based platform.

Please join us for the VTI Launch Opening Symposium

Date: Friday, December 4th, Time: 12:30 pm – 1:30 pm
Hosted by Dr. David Carr Locke presenting: Pancreatic Necrosis with video presentations from:
- Prof. James Lau, Prince of Wales Hospital, Hong Kong
- Cholangioscopy Case Studies from Hong Kong
- Prof. Jong Ho Moon, Soon Chun Hyang University Hospital, Seoul
- New endoscopic platforms for endobiliary intervention in the biliary tract.

Date: Saturday, December 5th, Time: 12:30 pm – 1:30 pm
Hosted by Dr. David Carr Locke presenting: Clips for PPH with video presentations from:
- Dr. Arthur Kaffes, Royal Prince Alfred Hospital, Sydney
- Cholangioscopy Case Studies from Sydney
- Dr. Faryal Saxena, Royal Prince Alfred Hospital, Sydney
- Case Studies Discussing PEAR

Date: Sunday, December 6th, Time: 12:30 pm – 1:30 pm
Hosted by Dr. David Carr Locke presenting: Stents: what can they do? with video presentations from:
- Dr. Amit Mani, Global Hospital, Mumbai, India
- Cholangioscopy Case Studies from India
- Dr. Sundanek Kathirgal, AIG, Hyderabad, India
- Metal Stents for the drainage of PFC - a Paradigm Shift

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Welcome Message

Dear Faculty members and Delegates of APDW 2015,

On behalf of the APDW 2015 Scientific Organizing Committee, I herein echo President Lin’s hearty greetings.

Preparing this year’s program was not only an honor, but also a challenge. Many of you will recall that APDW 2009 was also held in Taipei, and we have endeavored to surpass the success of that meeting by preparing an even more comprehensive and informative program to engage and inspire healthcare professionals across our allied disciplines.

The program is built upon four disciplinary areas in digestive medicine: Endoscopy; Gastroenterology; Hepatology; and Surgery. To whet your appetite, the eight keynote lectures will cover topics including: treating, controlling and curing hepatitis B virus infection; the role of stem cells in liver cancer progression and resistance; and the changing role of endoscopy in treating esophageal and other cancers. And for the first time in the history of APDW, our program also includes live endoscopy demonstrations, which are sure to prove a most edifying and popular attraction.

With distinguished international faculty members and delegates across the Asia-Pacific region, we look forward to a truly global dialogue on all aspects of digestive diseases. In particular, we welcome the opportunity to share with experts from other parts of the world our Asian-Pacific experiences in terms of viral hepatitis, Helicobacter pylori studies, GERD, biliopancreatic diseases, gastrointestinal malignancy screening, as well as surgical treatment of digestive diseases.

Whatever your specialty, we are sure that we will attract your attention in the coming three days, and you will probably find it hard to choose which sessions to join. Be sure to pick up your own copy of APDW Daily News each morning and keep it as an indispensable guide to help you plan your schedule and bring you the highlights of daily events that you may have missed.

Greetings Reception

Greetings one and all, and a very warm-hearted Taiwanese welcome to APDW 2015! And for those of you who came in 2006, welcome back.

Thu / 17 : 20 / Banquet Hall
Jaw-Town Lin  Taipei

We are delighted that Taiwan has once again been given the honor and cherished opportunity to host Asia-Pacific Digestive Week 2015. Greetings one and all, and a very warm-hearted Taiwanese welcome to APDW 2015! And for those of you who came in 2006, welcome back. Over the next 3 days, Taiwan International Convention Center will be thronged by over 3,000 participants from more than 43 countries – ranking among the biggest turnouts ever. We are delighted to have attracted so many fellow physicians from far and wide. Many of you will have attended yesterday’s Welcome Reception, but for those who were unable to attend or made other plans, here are pictorial highlights of the celebrations and entertainment you missed.
From Causes of Diseases to Cures for Diseases

Bacteria usually get a bad press, but that looks set to change!

Scientists from Taiwan are at the forefront of research which shows that besides being troublesome pathogens, bacteria can also offer cures for conditions that modern medicine has difficulty treating. At a Press Conference on Thursday organized by the Gastroenterological Society of Taiwan and hosted by its President Prof. Jaw-Town Lin, Prof. Ming-Shiang Wu (National Taiwan University Hospital) explained how purified extracts from stools may one day provide a “golden bullet” for cancer.

There has been an explosion of recent discoveries about the important role the intestinal flora play in disease – and our health. Comprising more than half of our stool mass, bacteria from the digestive tract work hand-in-glove with our immune system and metabolism. Indeed, the medical community is coming to regard the gut microflora as functionally important as a human organ. Imbalances in the microflora have been linked to diseases including inflammatory bowel disease, irritable bowel syndrome and colon cancer, as well as cardiovascular diseases, metabolic syndrome, obesity, allergy and even psychiatric problems. At National Taiwan University Hospital, Professor Ding-Shinn Chen recently showed that human gut microorganisms are pivotal to helping the host immune system eliminate hepatitis B virus. As research to elucidate the exact composition of healthy versus disease-predisposing gut bacteria progresses, it will become possible to devise new preventative and curative measures. The huge potential is exemplified by the success of fecal transplantation in curing 90% of cases of Clostridium difficile infection, whereas conventional antibiotics only work 30% of the time. “In the future, new antibiotics will not only need to target pathogens, but also avoid impairing the functions of healthy gut flora,” advises Prof. Wu. “For example, antibiotics may prevent gut bacteria from converting nosoxico metabolites into non-toxic molecules.” “Natural anti-microbial compounds found in food may also eliminate or suppress the replication of harmful bacteria,” added Dr. Wei-Kai Wu (National Taiwan University, Institute of Food Science and Technology).

Scientists in Taiwan are already well aware of the potential public health benefits of manipulating the gut flora. Prof. Wu was a leading figure in the Helicobacter pylori eradication program, which significantly reduced rates of gastric ulcer and cancer since it was launched in 2004. The success of this first community-based H. pylori screening program worldwide set the benchmark for global efforts against gastric cancer, and has been recognized by the International Agency for Research on Cancer, a subdivision of the World Health Organization. Since then, a national two-in-one screening program for gastric and colon cancer has been implemented in Taiwan. This program will not only enable earlier diagnosis and treatment of gastric and colon cancer, but also increase public participation in screening and provide an example to other countries setting up such programs.

Prof. Wu believes that the future may hold even greater promise. “Given the inextricable link between our health and gut bacteria, it is not far-fetched to envision therapeutic pills made from purified stool extracts being mass-produced in the near future,” he concluded.

Endoscopy and Gastrointestinal Surgery – Dispatches from the Cutting-edge

These are truly exciting times for all clinicians involved in treating digestive diseases! A quick glance through the APDW 2015 program attests to the revolutionary pace of recent progress. Over the space of just a few years, advances in surgical techniques and equipment have transformed endoscopy from a purely investigative and diagnostic modality into a highly effective treatment tool, with a diverse and ever-expanding range of indications – so many in fact, that the organizers scheduled two sessions on interventionul ultrasound-guided endoscopy (EUS). On Saturday morning, experienced practitioners will share pearls and pitfalls in EUS-guided: biliary drainage (Manuel Perez Miranda, Hospital Universitario Rio Hortega, Valladolid, Spain); celiac plexus neurolysis (Ichiro Yasuda, Teikyo University Mizonokuchi Hospital, Japan); cysto-gastrostomy (Surdeep Lakhhtia, Asian Institute of Gastroenterology, Hyderabad, India); and gastrojejunostomy (Tsakoa Itai, Tokyo Medical University, Japan).

On Saturday afternoon international experts will review the latest developments and augur future directions in other advanced imaging and management techniques, including narrow-band imaging (NBI) for colon disease (Yasushi Sano, Sano Hospital, Kobe Japan) and upper gastrointestinal disease (Noriya Uedo, Osaka Medical Center for Cancer and Cardiovascular Diseases, Japan), i-scan (Helmut Neumann, Erlangen University Hospital, Germany), duodenal endoscopic submucosal dissection (Hironori Yamamoto, Jichi Medical University, Tochigi, Japan), and confocal laser microendoscopy (Rungsun Rerknimit, Chulalongkorn University, Bangkok Thailand).

Pancreatic malignancies are notoriously challenging to treat and have poor prognosis. On Sunday morning, Asian clinicians will identify current unmet needs and scope opportunities for addressing improving patient outcomes. The agenda will cover surgery for pancreatic duct adencarcinoma (Yu-Wen Tien, National Taiwan University Hospital), risk stratification and management of intraductal papillary mucinous neoplasm (Masao Tanaka, Shimosoneki City Hospital, Japan), diagnostic biomarkers (Tooru Shimosegawa, Tohoku University, Sendai, Japan), and systemic treatment (Wei-Chih Liao, National Taiwan University Hospital).

Finally, be sure not to miss this afternoon’s keynote lecture, in which Kenneth Wang (Mayo Clinic, Rochester, Minnesota, USA) will bring us right up-to-date on the evolving role of endoscopic therapy in esophageal cancers in 2015. Looking to the future, it seems certain that endoscopic interventions will have an important role to play in overcoming other the major contemporary challenges in surgery. In another keynote lecture, on Sunday morning, Horst Neuhaus (University of Dusseldorf, Germany) will explore why and how endoscopic interventions are superseding conventional open surgeries.
The Presentation of Deep Enteroscopy of Taiwan

Fri / 15:30 / 102
Cheng-Tang Chiu Taoyuan

As APDW has grown from strength to strength over succeeding years, one of the most gratifying aspects has been seeing innovative concepts pioneered by Asian clinicians taking hold worldwide. Deep enteroscopy is a perfect case in point.

For many years, the small intestine was regarded as a no man’s land. This terra incognita was finally conquered at the turn of the millennium, when Hironori Yamamoto devised the double-balloon method, as described in his seminal paper ‘Total enteroscopy with a nonsurgical steerable double-balloon method’ (Gastrointest Endosc 2001;53:216–20). Until then, the depth to which an endoscope could be inserted simply by pushing, was limited by the formation of redundant loops in the small intestine. To overcome this difficulty and thereby improve access to the small intestine, Prof. Yamamoto innovated an endoscope with two balloons – one attached to the tip and another at the distal end of an overtube. Based on a push-and-pull principle, sequential inflation and deflation of the balloons as the endoscope and overtube are advanced and withdrawn gains traction on the intestinal wall to edge the instrument further inside. In this manner, a standard length endoscope can be inserted much deeper via either the mouth or the anus, with no looping, to access previously inaccessible parts of the small intestine. Since then double-balloon method has become the non-surgical gold standard enteroscopy technique for diagnostic and therapeutic examinations of the small bowel, and is now used universally in clinical routine work, because it provides the highest rates for complete enteroscopy. Nevertheless, double-balloon enteroscopy can be laborious and resource demanding; consequently the field of deep enteroscopy has evolved rapidly as refined approaches are developed and trialed. In this symposium, APDW 2015 is fortunate to host Prof. Yamamoto himself, together with esteemed practitioners from Asia, and from Europe Prof. Andrea May and Prof. Helmut Neumann, who will review the state-of-the-art in deep enteroscopy.

In Taiwan, the prevalence of small intestinal disease has risen dramatically over the last decade. Prof. Chiu first started to perform capsule endoscopy and then double balloon enteroscopy in 2004, and single-balloon enteroscopy in 2008. To date more than 1,400 person-time capsule endoscopies, 2,000 person-time double-balloon enteroscopies and more than 1,500 person-time single-balloon enteroscopies have been performed in Taiwan. To promote the study of the small intestine, the Taiwan Small Intestine Study Club was inaugurated on 1 July 2007. and after 7 years effort, the Taiwan Association for the Study of Small Intestinal Diseases was established on 9 March 2014. This association provides an excellent platform for experts to share their experience and ideas about deep enteroscopy in Taiwan. However, acknowledges Prof. Chiu, we still have a long way to go to piece together all of the emerging research findings to finally unveil some of the enduring mysteries of small intestinal disease.

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Cloud Island Seas

Fri / 10:00 / Plenary Hall

Always a memorable event, the Opening Ceremony of APDW 2015 is even more certain to provide an unforgettable highlight.

Featuring a stunning movie “Cloud Island Seas” that was created especially for APDW 2015, the Opening Ceremony will be held in the Plenary Hall from 10:00 this morning.

Determinants of H. pylori Eradication Rates

Fri / 08:20 / 201 ABC
David Y. Graham  Houston

Over recent years, eradicating Helicobacter pylori infection has been increasingly recognized among the most important prophylactic and therapeutic goals in managing several diseases of the upper gastrointestinal tract. The bacterium is a major cause of gastritis, peptic ulcer, and gastric cancer. Since Taiwan was among the vanguard of national H. pylori eradication schemes, APDW 2015 is a particularly appropriate venue to learn about the key determinants of success from one of the most influential and widely cited international experts in the field, Prof. David Graham. Past President of the American College of Gastroenterology and Editor of Helicobacter journal, Prof. Graham’s paper ‘Effect of treatment of Helicobacter pylori infection on the long-term recurrence of gastric or duodenal ulcer. A randomized, controlled study’ (Ann Intern Med 1992;116:705-8), is acclaimed as a seminal paper in gastroenterology.

In the opening symposium of the gastrointestinal topic, Prof. Graham will explain how it is possible to reliably achieve H. pylori cure rates of 95%. Key determinants of success include those that influence the efficacy of the drug regimen – mechanism, formulation, dose, dosing interval and duration – as well as several important patient-related factors. For example, certain genetic polymorphisms, especially in the CYP2C19 gene, can be critical to the metabolism of pH-dependent drugs. The timing of drug administration in relation to meals is also important; but no matter how effective the regimen, it will be to no avail if the patient is not motivated to adhere to their prescribed therapy or has to discontinue due to side effects.

Notwithstanding the best efforts to match the regimen to the patient’s requirements and characteristics, the ultimate arbiter of effectiveness is antimicrobial resistance. Experience tells us that in general a given eradication regimen, in terms of doses, dosing intervals and duration, will yield very similar if not identical results with susceptible H. pylori strains in any patient population worldwide. For example, results in populations with a high prevalence of slow and intermediate metabolizers of proton pump inhibitors would be expected to be better than those in populations with a high prevalence of CYP2C19 rapid and ultra-rapid metabolizers, or who are treated with amoxicillin-based regimens. However, it is possible to minimize or overcome this discrepancy by using higher proton-pump inhibitor doses in rapid metabolizer populations.

In a nutshell, “the key is to know what works well locally... and to know why”, Prof. Graham told APDW Daily News. “Once a populations’ susceptibility pattern is known, it becomes possible to reliably choose a regimen that will achieve eradication rates of 90% or higher on an intention-to-treat basis among patients who are fully compliant with their prescription. It is important that the specific details of the therapy chosen, including doses, dosing intervals and duration, should be accurate; however, the physician’s prescription is only the first step. Patients must then be educated about possible side effects and the importance of following the instructions and completing the full course.”
Gastroesophageal Reflux Disease – An Asian Perspective

Khean-Lee Goh  
Kuala Lumpur

Gastroesophageal reflux disease (GERD) used to be considered a Western type of disease, but it is now recognized as a fast emerging disease in the Asian-Pacific region too. According to the latest estimates GERD is thought to affect up to 60 million Asians and several time-trend studies have shown an increase in reflux symptoms among the general population and of erosive esophagitis in patients undergoing upper gastrointestinal endoscopy. As much current knowledge about GERD is based on Western populations, among which the incidence of GERD rose earlier, it is important to understand the causes and potential implications in Asian populations, particularly since there are epidemiologic differences regionally, as well as globally.

Although the underlying reasons for the marked upward trend of GERD in Asia are unclear, it is likely to relate to the rising urbanization and affluence of the whole Asian-Pacific region and the lifestyle changes associated with this transition. In particular, increasing rates of overweight and obesity in Asian populations, which have been well-documented, are likely to contribute significantly to the increase in GERD. For example, in recent studies Koreans with body mass index (BMI) of 25 or more had an odds ratio of 1.3 for developing GERD, while Taiwanese with BMI of 30 or more were nearly four times as likely to have erosive esophagitis. Intriguing new evidence suggests that the increase in GERD may also be linked to declining incidence of Helicobacter pylori infection. In a recent Japanese report, an increase in gastric acid secretion was attributed to the success of efforts to eradicate H. pylori infection. This is an important issue, as H. pylori itself causes other upper gastrointestinal tract diseases, in particular gastric cancer. In most studies, non-erosive reflux disease accounts for from 70% to 90% of Asian patients with GERD. Amongst those with erosive esophagitis, milder grades (LA Grade A, B) predominate. Barrett’s esophagus remains uncommon in Asians with a prevalence of less than 1.0% reported, compared with approximately 10% of those with gastroesophageal reflux in the USA. For this reason, the Third Asian-Pacific Consensus on GERD concluded that there is no value in screening for Barrett’s esophagus in the region.

This session presents an excellent opportunity for Western and Asian physicians to share their experience the management of GERD, to identify unmet needs, and to discuss how best these may be addressed. Prof. Khean-Lee Goh will be already be familiar to many APDW Daily News readers. He is President of the APDW Federation, Vice President of the World Gastroenterology Organization, Immediate Past President of the Asian Pacific Association of Gastroenterology, and Chairman of the JGH Foundation. Prof. Goh will be joined by David E. Fleischer, from Mayo Clinic College of Medicine, USA, together with other regional experts from Taiwan and Singapore.

Barrett’s Esophagus: Etiology, Management, and Relevance for Western and Asian Physicians

David E. Fleischer  
Slottsdale

As the prevalence of GERDs in Asia rises, it becomes imperative to learn about the experience of Western clinicians, who have faced rising rates of GERDs for longer. From the renowned Mayo Clinic, David Fleischer is a leading authority on Barrett’s esophagus, with more than 250 publications to his credit.

Barrett’s esophagus is usually defined as a change (of any length) in the esophageal epithelium due to gastric reflux that can be identified at endoscopy, and is confirmed by biopsy to have intestinal metaplasia of the tubular esophagus. Barrett’s affects approximately 10% of 60 million people in the USA with erosive reflux. Besides long-standing reflux the major risk factors are having an affected first-degree relative, being male and Caucasian, and having hiatal hernia and central obesity. “Barrett’s is the most important risk factor for esophageal adenocarcinoma, which is the fastest increasing cancer in the US,” elaborates Prof. Fleischer. “Reflux is thought to initiate a transition from squamous cells to intestinal metaplasia, low-grade then high-grade dysplasia, and ultimately adenocarcinoma.” Barrett’s is usually diagnosed by endoscopy and biopsies, and arbitrarily classified as short segment (< 30 mm) or long segment (> 30 mm). Management is based on histological staging at diagnosis, according to guidelines published by the American Gastroenterological Association (2011), the American Society for Gastrointestinal Endoscopy (2012), or American College of Gastroenterology (Am J Gastroenterol 2015;110:1–21). The guidelines recommend endoscopic therapy for high-grade dysplasia, either endoscopic therapy or surveillance for low-grade dysplasia, and surveillance only in most cases of intestinal metaplasia, though “high-risk” patients might be treated. Endoscopic mucosal resection is indicated for nodular disease and thermal therapies for flat disease, with radiofrequency ablation favored over cryotherapy or other modalities. However, guidelines for post-therapeutic surveillance are not well defined.

In a recent review of Barrett’s epidemiology in Asia, the pooled prevalence was 7.8%, with 1.3% histologically confirmed – mostly short-segment type. From 1991 through 2014, there was a trend towards increasing prevalence. Pooled prevalences of low-grade, high-grade and esophageal adenocarcinoma were 6.9%, 3% and 2%, respectively. Significantly increased risk of histologic Barrett’s was associated with reflux symptoms, male sex, hiatal hernia and smoking; however, half of the patients with histologic Barrett’s did not have reflux symptoms. In a study of Chinese patients in Taiwan with Barrett’s and reflux esophagitis, those with Barrett’s had significantly stronger acid reflux, decreased lower esophageal sphincter pressure and weaker distal esophageal peristalsis. Other Taiwanese investigators reported that the frequency of erosive and extra-esophageal symptoms in patients with Los Angeles Grade A, B esophagitis was higher than those with Grade C, D. However, data from other Asian countries are patchy and a report on the current status of Barrett’s esophagus research in Asia concluded that more studies are warranted.
Chemoprevention of Gastric Cancer by H. pylori Eradication and Long-term Use of NSAIDs and Aspirin

Jaw-Town Lin  
Taipei

From 2007, the Journal of Gastroenterology and Hepatology Foundation introduced a distinguished lecturership in the area of luminal gastroenterology, to be presented each year during Asia-Pacific Digestive Week. Since 2008, it has been called the Marshall & Warren Lectureship, in recognition of the pivotal contributions to this field by Professors Barry Marshall and Robin Warren, from Western Australia. Their Nobel Prize winning discovery that Helicobacter pylori is the principal causal agent of peptic ulcer disease and a major etiological factor in gastric cancer, has changed the landscape for managing peptic ulcer disease throughout the world. It is particularly fitting that this year’s awardee is Professor Jaw-Town Lin, who, as President of the Gastroenterological Society of Taiwan, has been a driving force in organizing APDW 2015.

Gastric carcinogenesis is a multifactorial process that involves interactions between the host, the environment, and pathogenic organisms. Lifestyle, H. pylori infection, and genetic susceptibility are all risk factors. In particular, H. pylori infection is associated with a nearly six-fold increase in the risk of gastric cancer. H. pylori eradication therapy has reduced the occurrence of gastric cancer, with a significant pooled odds ratio of 0.65. Research using the Taiwan National Health Insurance Database (NHID) showed that early H. pylori eradication reduced the risk of gastric cancer risk by 40% and late eradication by 37%. A prospective study of primary prevention for gastric cancer by H. pylori eradication, which was conducted from 2004 at Matsu Island, Taiwan, showed a 57% risk reduction in gastric atrophy; however, there was no effect in preventing intestinal metaplasia. “H. pylori eradication should ideally be performed before the progression of gastric mucosal atrophy to prevent gastric cancer,” advises Prof. Lin, “as it appears to reduce the risk of developing gastric cancer as well as metachronous gastric cancer.”

Besides H. pylori eradication, non-steroidal anti-inflammatory drugs (NSAIDs) or aspirin may also reduce the risk of gastric cancer – one study reported a significant protective effect NSAIDs against gastric cancer, with an odds ratio of 0.78. And in 2010, analysis of Taiwan NHID records showed that regular users of NSAIDs had reduced risk of gastric cancer, with an odds ratio of 0.79. Studies to date suggest that chemoprevention of gastric cancer can be achieved through H. pylori eradication, NSAIDs, selective cyclooxygenase-2 inhibitors, and combined H. pylori eradication plus NSAIDs. Long-term NSAID users had reduced risk of gastric cancer, and the protective effect appears to be duration-dependent. However, cautions Prof. Lin, “since the risk of bleeding increases with age, it is important that clinicians weigh the risk versus benefit of taking aspirin or NSAIDs as a gastric cancer chemoprevention strategy.”
**How to Achieve a Cure for HBV?**

**Fabien Zoulim**  
Lyon

Being a hepatitis B virus (HBV) hyperendemic region, local physicians are always especially interested to find out the latest advances in preventing and curing HBV. APDW 2015 is therefore delighted to host such an eminent overseas guest speaker as Dr. Zoulim, who is ideally placed to provide a current international perspective. A prolific author of more than 300 papers and 2004 winner of the International Society for Antiviral Research, William Prusoff award, Dr. Zoulim is Associate Editor for Gut, and previously Journal of Hepatology, and also serves on the European Association for Study of the Liver governing board. Despite great strides in improving the treatment of HBV over the years, many challenges remain. In this timely keynote lecture, Dr. Zoulim will assess the merits and limitations of conventional therapies and highlight some of the most exciting new avenues of research.

HBV is a chronic disease and the choice of current therapies approved in this indication remains limited to either pegylated-interferon-alpha (Peg-IFN-α), or one of the five nucleoside analogue therapeutics: lamivudine, adefovir, entecavir, telbivudine and tenofovir. Although the newer-generation of nucleoside analogues – entecavir and tenofovir – effectively suppress HBV in most patients with a high barrier to resistance, neither completely cures HBV infection in most patients; only 10% of patients treated with either drug test seronegative for HBV surface antigen after a follow-up period of 5 years. Regrettably, strategies to improve the response rate by administering nucleoside analogues in different combinations or together with Peg-IFN-α have proven unsuccessful.

The urgent need for new approaches has spurred renewed interest in investigating steps in the HBV replication cycle, as well as specific virus-host cell interactions, as potential targets for newly developed antiviral agents. Dr. Zoulim will elaborate on some of the most promising targets, which include: directly inhibiting viral replication; inhibiting viral entry; targeting covalently closed circular DNA (cccDNA) formation and structure, and cccDNA silencing; using small interfering RNA to target viral transcripts; capsid assembly modulators; and viral envelope proteins. “On the other hand, restoring the hosts own immune response offers complementary approaches that should not be overlooked,” says Dr. Zoulim. For example, Toll-like receptor agonists or specific antiviral cytokines may help to restore innate immunity against HBV, while exhaustion of adaptive immunity might be overcome by inhibitors of negative check point regulators, a therapeutic vaccine, or engineering of specific T cells. Dr. Zoulim is excited by the possibilities, “with the latest techniques, we can evaluate new targets and compounds using both in vitro and newly developed in vivo models of HBV infection,” he explains. “Adding one or more drugs to current regimens offers the genuine prospect of significantly improving the therapeutic response, which will enable us to reduce the burden of not only drug resistance, but also the incidence of cirrhosis and hepatocellular carcinoma.”

**Direct-acting Antiviral/Peg-Interferon Plus Ribavirin Therapy in Asian HCV Patients**

**Kazuaki Chayama**  
Hiroshima

Hepatitis C virus (HCV) infection poses a major public health threat, especially in Asian populations where chronic HCV is a leading cause of liver decompensation and hepatocellular carcinoma. During this afternoon session, leading young luminaries will share the latest research findings and assess the implications for current practice. A specialist in the molecular pathology and treatment of HCV, Prof. Kazuaki Chayama is Executive and Vice President (Medical Affairs) at Hiroshima University, and Director of Hiroshima University Hospital.

Prof. Chayama will describe the evolving role of peg-interferon plus ribavirin (PR) with protease inhibitors (PI) in the treatment of HCV in Asian patients, and discuss possible applications of such therapy in the future. The advent of PIs has greatly improved the eradication rate in patients with genotype 1 HCV, who generally respond poorly to PR. The first-generation PIs telaprevir and boceprevir were the first direct acting antiviral agents (DAAs) to be approved for treatment of HCV genotype 1. However, despite improved eradication rates, triple therapy with PR augmented by telaprevir or boceprevir was associated with adverse events, which include anemia, appetite loss, and a skin rash that can be severe enough to warrant drastic ribavirin dose reduction and/or discontinuation of one more of the therapy drugs and referral to a dermatologist.

Newer first-generation PIs such as simprevir and vaniprevir are not only more potent antivirals, but also have fewer side effects than their predecessors, although the side effects of PR still preclude treatment in some patients. Now, the latest second-generation of PIs, MK-5172, ACH-2684, and new classes of DAAs such as daclatasvir and ombitasvir, and polymerase inhibitors, such as sofobuvir and beclabuvir, have enabled PR-free regimens with high eradication rates, reduced side effects and shorter duration. As a result, interferon-free DAA therapy can be used to treat a wider cross-section of patients, including those with cirrhosis or prior non-response to interferon therapy. DAA therapies with pan-genotypic efficacy are also being developed to treat other HCV genotypes. For these reasons, the American Association for the Study of Liver Diseases has removed PR from its treatment guidelines. However, PR with or without DAA must still be used to treat patients who develop rapidly progressing chronic hepatitis with high alanine aminotransferase levels before DAA-only therapy can be initiated. Another possible role for PR might be to treat patients who develop resistance against multiple drugs – cases of resistance to PIs, NS5A inhibitors and potential resistance to all three major DAA classes have been reported, although the long-term consequences of DAA resistance remain uncertain.

Other topics to be covered include: DAA overview (Jordan Feld, University of Toronto, Ontario, Canada); Cost-effective PR dual therapy for GT 1 and non-1 patients (Chia-Yen Dai, Kaohsiung Medical University, Taiwan); and IFN-free therapy (Ming-Lung Yu, Kaohsiung Medical University Hospital).
IFN-free therapy

Fri / 15:30 / Banquet Hall

Ming-Lung Yu
Kaohsiung

The trend in hepatitis C virus (HCV) treatment with direct-acting antivirals (DAA) is moving from interferon (IFN)-based, to IFN-free regimens that are already standard-of-care in most Western countries. Although many DAA regimens are expected to be introduced in the Asia-Pacific region, it has been difficult to implement a pan-Asian HCV practice guideline, due to the variable and often uncertain timing of the availability of DAs in the region. Nonetheless, the development of potent DAs with high genetic barriers and satisfactory safety profiles increases the prospect that IFN-free DAA regimens will soon become available. In this lecture, Ming-Lung Yu will discuss new IFN-free HCV combination therapies for patients subdivided by HCV type and treatment history and report on ongoing trials of promising new regimens.

In 2014, the first IFN-free regimen – sofosbuvir plus weight-based ribavirin (RBV) – was approved for all HCV genotypes in Australia and Macau. Sustained virologic response (SVR) rates of HCV-2 and HCV-3 patients, reach more than 90%. Alternatively, HCV-1 patients ineligible for IFN may receive 24-week sofosbuvir/RBV, with SVR of 60-70%; an off-label recommendation for HCV-1/4-6 IFN-eligible patients is 12-weeks sofosbuvir plus simprevir, with SVR exceeding 90% in the Phase 2 COSMOS trial. The first IFN-free regimen for HCV-1b, 24-week daclatasvir plus asunaprevir, was approved in Japan in July 2014, for IFN-eligible/intolerant and treatment-experienced patients, with SVR of 85-90%. In August 2014, sofosbuvir plus daclatasvir with or without RBV for 12-24 weeks was approved for naïve or experienced HCV-1 patients in Europe, while that October, 8-12 weeks fixed-dose sofosbuvir/ledipasvir, was approved in the USA for HCV-1 naïve and experienced patients. Both regimens are expected to be available in Asia-Pacific before 2016. A 12-week combination of three DAs plus RBV achieved high SVR rates (90-95%) for naïve/experienced, cirrhotic/non-cirrhotic HCV-1 patients in Phase 3 trials. Another 12-week 3-DAA regimen for HCV G1b non-cirrhotics and a 12-week 3-DAA/RBV regimen for HCV G1a and cirrhotic HCV G1b patients were approved in December 2014. A new fixed-dose combination of 3-DAA (daclatasvir/asunaprevir/beclabuvir) for HCV G1 and a 2-DAA (Grazoprevir/Elbavir) for HCV G1/4 has passed Phase 3 efficacy and safety studies and might be approved soon.

While progress toward improving patient outcomes is welcome, lacking a “one size fits all” approach heightens barriers to treating HCV. “In the emerging DAA era, we must be pragmatic, especially in less affluent nations,” asserts Prof. Yu. “Therefore, the current recommendation should be based not just on the availability and indication of DAs, but also take into consideration their benefit/risk and cost-effectiveness.” Consequently the use of pegylated-IFN/RBV will likely persist in Asia-Pacific countries for a few years before effective and affordable IFN-free DAA therapies become widely available.
Live Demonstration

Endoscopy – Live Demonstration

Sat / 08:20 / Plenary Hall

APDW Daily News applauds the efforts of the Local Organizing Committee and Scientific Committee in putting together such a comprehensive and varied program, and convening a truly world-class faculty. The lectures you will hear over the next three days are assured to be of the highest quality. But I’m sure you’ll agree that lectures can go only so far in imparting the nuances of the clinician’s craft…there is nothing compared to actual hands-on experience. Which is why this year’s program includes a new first for APDW — a live endoscopy demonstration.

From 08:20 until 15:30 tomorrow afternoon, operations that are being performed at Taipei Veterans General Hospital will be beamed live into the Plenary Hall auditorium and through the two-way video link, the experts will be able to communicate in real-time with the audience to explain what they are doing and show them imaging results and biopsy specimens. What’s more, the audience will be able to put any questions to the operating endoscopists as they work – why did they elect to use a particular technique or how did they confirm their diagnosis?

The 20 scheduled cases will entail both diagnostic and therapeutic endoscopies, and include, among others: esophageal, gastric and colonic endoscopic submucosal dissection; image enhanced endoscopic evaluation of gastrointestinal tract lesions; blue-light laser or ICC evaluation; POEM for achalasia; double balloon enteroscopy; ERC; direct cholangioscopy; and several EUS techniques.

Don’t miss tomorrow’s issue of APDW Daily News to see the full agenda, and be sure to drop by for a while to make the most of this unique opportunity!

Young Investigator Awards

Young Investigator Awards

Fri / 13:40 / 103

Young investigators are the lifeblood of our allied disciplines. The members of the APDW Federation are very keen to encourage new researchers, so that the next generation of clinician scientists will be ready to take up the reins from their mentors. Sponsored jointly by the APDWF and the JGHP, the Young Investigator Award is intended to stimulate interest in research training, by rewarding examples of excellence from nationals of Asian Pacific countries, who are just embarking on their career in gastroenterology/hepatology. As usual, we have received many very high quality entries from countries far and wide, including: China (17), India (15), Japan (10), Korea (13), Malaysia (2), Philippines (9), Singapore (3), and Taiwan (9).

Nine outstanding applicants, who were shortlisted based on the score assigned by the Abstract Selection Committee, have been invited to give 10 minute presentations from 13:40-15:20 on Friday, 4 December. The onerous task of selecting the three best papers falls to the judging panel, which will take into consideration the quality and scientific merit of the abstract, the quality of the presentation, and the authors’ ability to defend their work. Awards of US$ 2,000 for the winner and US$ 1,500 and US$ 1,000 for the runners-up will be presented during the Faculty Dinner on Friday evening. Be sure to read tomorrow’s edition on APDW Daily News to find out who the winners are.

**SP-S3 / Surgery for Gastric Cancer**

Robotic Surgery for Gastric Cancer

Fri / 13:40 / 102

Ji Yeong An Seoul

Endoscopic techniques are becoming so sophisticated nowadays that in some cases, they have reached the limits of what can be achieved with conventional hand-held equipment. To push the envelope further requires the development of automated hardware and software that can augment and enhance the operator’s manual skills and expand the range of minimally invasive surgery. In meeting this need, the advent of robotic endoscopy devices heralds a new era in gastrointestinal endoscopy. Indeed, robotic surgery has already been rapidly adopted in the field of laparoscopy and is assuming an important position in general surgery too. In this lecture, Dr. Ji Yeong An will discuss the benefits, challenges, and practicalities of using robotic surgery for gastric cancer.

Dr. An is enthusiastic about the possibilities that robotic surgery offers. “It provides advanced capabilities that include superior three-dimensional views, as well as improved dexterity. During robotic surgery, surgeons can operate with ergonomic posture; for example, an external articulated ‘EndoWrist’ confers seven degrees of freedom that exactly reproduce the movements made by a surgeon’s hands, but without any tremor and with far superior ergonomics compared with conventional laparoscopy.”

Several retrospective studies in gastric cancer surgery have reported less blood loss, shorter hospital stay, and better lymph node retrieval with procedures carried out using robotic rather than laparoscopic gastrectomy. However, in meta-analyses and prospective study no significant differences in postoperative outcomes were found between these modalities. What’s more, robotic gastrectomies had longer operation times and higher costs than laparoscopic gastrectomy – these are commonly reported to be the main disadvantages. Furthermore, there may be no differences in overall survival or recurrence-free survival. Although such findings appear to show little benefit of robotic gastrectomy compared with laparoscopic surgery in terms of long-term outcomes in the current indication of minimally invasive surgery for gastric cancer, Dr. An prefers to focus on the benefits of robotic systems that can facilitate technically demanding operations and maximize operator comfort. “The advanced technology of robotic systems enables surgeons to provide higher quality surgery to patients and to perform complicated procedures more easily,” believes Dr. An. “This is advantageous when performing procedures such as advanced gastric cancer surgery, total gastrectomy with or without spleenectomy, and function-preserving gastrectomy.”

Robotic systems can also facilitate learning more rapidly and safely compared to laparoscopic surgery. Consequently, inexperienced surgeons can start to use robotic procedures more easily and experienced surgeons can adapt advanced and complicated procedures for gastric cancer surgery. As things stand, robotic gastrectomy offers a safe and feasible alternative and is gaining recognition in more difficult and complicated cases. However, to secure the position of robotic surgery as a standard operation, further studies that provide concrete evidence of beneficial clinical outcomes will be required.
Metabolic Surgery for Diabetes

Fri / 10:30 / 102
Wei-Jei Lee Taipei

Burgeoning pandemics of obesity, diabetes and metabolic diseases, coupled with the limitations of pharmacotherapies in addressing the underlying pathophysiology of these conditions, are driving a paradigm shift in which surgical approaches are assuming a more important role in addressing challenges that remain unresolved by conventional approaches. Indeed, there is strong evidence that metabolic surgery can improve and induce remission in obesity-related type 2 diabetes mellitus (T2DM). APDW 2015 is privileged to welcome Wei-Jei Lee to chair this symposium, which will explore the disease burden of diabetes in Asia and the indications, procedures and outcomes of surgical treatment for Asian patients with T2DM. “Diabetes is the most important metabolic disease but current medical therapy provides adequate control in fewer than 50% of patients; metabolic surgery may provide obese T2DM patients with better alternatives,” Prof. Lee told APDW Daily News.

Diabetes Burden in Asia

Jen-Der Lin Taoyuan

The prevalence and economic burden of T2DM have grown worldwide, especially in Asian countries, during the last decade, with global prevalence of 387 million in 2014 predicted to rise from 282 to 525. Reported estimates indicate that 60% of the world’s diabetic population are Asian; the International Diabetes Federation Diabetes (IDF) 2014 Atlas revealed the prevalence of T2DM in Southeast Asia and Western Pacific regions to be 8.8%, and 7.9%, respectively. And as Asian countries undergo rapid economic development, urbanization, and dietary transitions, these numbers will increase, together with the burdens of morbidity, mortality and associated economic costs. Of particular concern, nearly half of T2DM cases are predicted to remain undiagnosed, which has important implications in Asia, given that 80% Asian T2DM patients have end stage renal disease and approximately 30% have retinopathy. Moreover, several studies suggest that diabetes treatment in developing Asian countries is far from optimal. There are urgent unmet needs for diabetes-related patient education, early diagnosis of complications, a more structured care delivery system and better management of cardiometabolic risk factors.

Diabetes and Gut Hormones

Chih-Yen Chen Taipei

Studies in Taiwan have shown that RYGB and SG are effective in treating non-morbidly obese Asian T2DM patients. Other research is investigating whether the endocrine effects of metabolic surgery are responsible for improved glucose homeostasis and weight loss, since metabolic surgery not only permanently resets strong counter-regulatory responses such as hunger and craving by changes in gut-brain signaling, but also leads to differential nutrient handling and energy partition. Studies have shown that ghrelin levels increased after RYGB due to weight loss, but decreased after (SG), while gastric inhibitory peptide (GIP) and glucagon-like peptide-1 (GLP-1) levels increase post-surgically, suggesting incretin effects from RYGB and SG. However, recently, duodenal-jejunal bypass liner exhibited opposite effects on GIP or GLP-1 values. These various effects of metabolic surgery highlight the crucial role of the small intestine in glucose homeostasis and suggest that duodenal exclusion may be a promising approach to achieving remission.

Asian Diabetes Surgery

Kazunori Kasama Tokyo

There are rising trends of bariatric and metabolic surgery in Asia, with more than 30,000 procedures performed annually – mostly sleeve gastrectomies (SG), followed by gastric bypass and gastric banding – almost all of which are performed laparoscopically. Since T2DM patients differ widely in their extent and combinations of obesity and/or metabolic disorders, and range from chronic long-term insulin users to newly-diagnosed cases, there is no gold standard bariatric surgery procedure. Rather, the bariatric and metabolic procedures used should be based on the severity of T2DM, the Diabetes Surgery Score (ABCS score) is a useful guide to patient selection and choice of procedures. For example, low DSS patients tend have better outcomes with bypass surgery than with SG. Post-operative gastric cancer is a concern in high-incidence countries such as Korea, China and Japan, as it is not possible to examine the stomach after Roux en Y gastric bypass (RYGB) or mini gastric bypass. For this reason, SG may be more suitable for Asian T2DM patients.

Endoluminal Treatment of Diabetes

Simon K.H. Wong Hong Kong

Although bariatric surgery has become much more widespread in Asia in recent years, still less than 1% of morbidly-obese patients seek such treatment, despite its proven effectiveness and minimal morbidity. There is a need for even less invasive and more effective treatment for this chronic disease. Endoscopic procedures such as endoscopic gastropasty and intragastric balloon placement can reduce gastric capacity and thereby induce weight loss; however, endoscopic therapy of morbid obesity was previously limited in terms of managing post-operative complications such as endoscopic dilation of strictures and formation of anastomosis leakage sites. Endoscopy has recently evolved to a level that now enables complicated procedures to be performed using various endoscopic and natural orifice transluminal endoscopic surgery. In the past, complex problems like weight regain with dilatation of gastric pouch and gastrojejunal stoma after gastric bypass required revision surgery to trim down the remnant stomach and gastrojejunostomy stoma, which can now be managed with endoscopic stoma reduction. And with greater understanding of pathophysiologic changes after bariatric surgery, new treatment options have been devised to mimic the effects of these changes, while simultaneously reducing the associated operative risks. However, as with non-surgical weight-loss methods, the main uncertainty of endoscopic therapy is durability of efficacy and we need more experience to determine its future application.

Summary

“Metabolic surgery is rapidly gaining acceptance and has already become established in evidence-based algorithms for multi-modality management of obese T2DM patients. Available data suggest that it may provide better glycemic control in obese T2DM patients who are not well controlled by conventional pharmacotherapeutic agents,” reiterates Prof. Lee. Indeed, the best option for such patients may be metabolic surgery plus intensified medical treatment. However, the effect of metabolic surgery on long-term outcomes remains uncertain and requires further study. “To achieve optimal outcomes, metabolic surgery should be performed by experienced surgeons working in certified integrated metabolic surgery centers,” concludes Prof. Lee.