Introduction

In the 1970s, there were not many options for the palliation of malignant obstructive jaundice. Palliative biliary bypass surgery carried significant morbidity and mortality, and percutaneous transhepatic drainage was associated with considerable morbidity because of pain and external bile loss. Internal drainage with an endoscopically placed prosthesis in the bile duct or stenting was considered one of the major breakthroughs in therapeutic endoscopy in the late 1970s.

In 1978, Dr. Nib Soehendra in Hamburg fashioned a single pigtail stent for biliary drainage using the cut end of an angiographic catheter. In 1979, Dr. Peter Cotton in London reported the double pigtail stent design to prevent stent migration. In 1981, Dr. Kees Huibregtse from Amsterdam described the use of side flaps created in the wall of a straight stent in place of pigtails to prevent stent migration. Dr. Michel Cremer from Brussels designed a stent with a snake-shaped proximal tip and a distal C-loop in the duodenum for the same reason.
Figure - Close up view of the 3 layers coaxial introducer system - the guide wire, inner catheter and tapered proximal end of the CL stent.

### Table 1*
The effect of changing configuration of tubes on flow rates (ml/min) [1, 2]

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<tbody>
<tr>
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<tr>
<td>Internal Diameter (mm)</td>
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<tr>
<td>Control straight tube</td>
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<td>288</td>
</tr>
<tr>
<td>Proximal flap and large side hole</td>
<td>111</td>
<td>277</td>
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<tr>
<td>Sharp proximal tapered tip</td>
<td>103</td>
<td>260</td>
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<tr>
<td>Less proximal tapered tip + side hole</td>
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</tr>
<tr>
<td>Proximal tapered tip, side hole + flap</td>
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<td>261</td>
</tr>
<tr>
<td>Complete CL stent</td>
<td>110</td>
<td>258</td>
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</tbody>
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*See table references on page 8.

### Table 2*
Comparison of mean flow rates (ml/min) through stents of different caliber and configurations [3]

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<td>French size</td>
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<tr>
<td>Double pigtail stent</td>
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<td>133</td>
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### Design of the Cotton-Leung Stent

In 1984, in collaboration with Cook Endoscopy, the Cotton-Leung stent was designed to overcome the shortcomings and limitations of these earlier stents. The pigtail stent has restricted flow because of the small side holes at the tip. Despite the pigtail end and anchoring flaps, the single pigtail stent and the subsequent Amsterdam stent were more prone to migration because of the straight shaft. The small end hole at the tip of a Cremer stent limited the flow and drainage of bile. The proximal tip of the Amsterdam stent could get stuck at the lower level of a tight or angulated stricture or tumor because of the gap between the guide wire and the stent lumen (shoulder effect), which creates resistance to stent insertion. The curved ends of a double pigtail stent made it difficult to place through a stricture.

The unique feature of the Cotton-Leung stent is the coaxial tapered tip design, which eliminates the gap between the guide wire, inner catheter and tip of the stent, offering a tight fit to facilitate passage of the stent through a tight stricture. In vitro flow studies demonstrated that drainage through a tube depends on the diameter of the end hole (Table 1). A tapered tip could significantly reduce the flow of bile through the stent [1, 2]. To overcome this problem, we created a 5 mm side hole, which improves drainage through the proximal end of the stent with a resultant side flap similar to the design of the Amsterdam stent which offers resistance to stent migration (Figure). However, the side flap can be collapsed if it is being pushed against the bile duct wall or a tumor (or a failure to open up because of incomplete passage through a tumor), thus closing off the opening and reducing flow. To avoid this complication, we created another 5 mm side hole (without flap) on the opposite side of the side flap to ensure drainage of the obstructed system above the stricture. The tip of stent above the proximal side flap is about 1.5 cm with the side hole and side flap properly spaced to avoid weakening the stent and to prevent buckling in the normal deployed position. In order to prevent upward stent migration, we created another 5 mm side flap on the same side at the distal end which is positioned at the level of the papilla in the final deployed position. This distal flap opens up almost at a right angle to the shaft to provide maximum resistance to stent migration. The side hole allows continuous drainage from the stent in the event of downward stent migration when the distal end hole is blocked by the duodenal wall (a problem that affects straight stents without distal side hole). Assuming a perfect stent deployment and no subsequent stent migration, this side hole will be placed practically at the pancreatic orifice, thus avoiding any local pressure effect on the pancreatic opening. We have not observed a significant increase in post-stenting pancreatitis when a single 10 FR stent is used, even though the stent position is not guaranteed. On the other hand, a collapsed distal flap not only fails to resist upward migration (especially in the presence of a papillotomy) but could also possibly irritate the pancreatic opening and cause pancreatitis.

Theoretically, there is a risk of duodenal irritation and perforation associated with downward stent migration. In order to minimize potential irritation to the opposite duodenal wall, the stent has only a 1 cm tip extending beyond the distal flap. The stent is designed to conform to the shape of the bile duct, which in most cases has an inherent curvature rather than being straight. We created a gentle C-curve in the mid-shaft of the stent. When the stent is deployed, the curvature of the stent follows the contour of the bile duct and also provides a spring-like action holding the stent in place, further reducing the risk of stent migration. We did not put any side holes in the shaft of the stent (which traverses the tumor) between the side flaps to avoid the theoretical risk of tumor in-growth. This Cotton-Leung stent has been shown to provide more effective drainage than double pigtail stents in laboratory studies (Table 2) as well as in a clinical study [3].
Why Cotton-Leung Stents are Made of Polyethylene

In the early 1980s, homemade stents were popular and we often had to tailor the stents for patients. Therefore, it was crucial to find a material that could be easily shaped, manipulated or cut. After experimenting with different materials, we chose to use polyethylene instead of Teflon or polyurethane – the other materials available at the time. Polyethylene was chosen for its low melting point and because it becomes soft and malleable at 87°C compared to the much higher temperature required to soften Teflon. A polyethylene stent can be shaped and molded easily using boiling water or steam and subsequently set by holding it and immersing it in cold water. It is also softer than Teflon, making the cutting of side holes or side flaps much easier.

Stent Length

By definition, the stent length for the Cotton-Leung design is the distance between the proximal and distal flaps. In order to accommodate various strictures, stents are available in lengths ranging from 5 cm for distal CBD obstruction to 15 cm for hilar obstruction. Ideally, the proximal flap of a deployed stent should extend about 1 cm above the upper level of the stricture or tumor (to avoid tumor overgrowth), while the distal flap should be at the level of the papilla. In this case, even though there may be a risk of downward migration, only 2 cm of the stent may protrude from the papilla into the duodenum. However, this only holds true with a significant stricture holding the stent in position and may not apply when the stent is placed for stone obstruction or when the stricture has been dilated. In general, an 8 cm stent will fit most lesions, either a stricture or large obstructing CBD stones in the common bile duct. Stents are available in various diameters: 7, 8.5, 10 and 11.5 FR. Although a larger stent provides a faster flow, there was no significant difference observed in the flow rate and reported stent patency rate between the 10 FR and 11.5 FR stents because of similar internal diameters. Because of the thicker wall material, the larger 11.5 FR stent is more difficult to remove. We prefer to use 10 FR because they can be easily removed through a large 4.2 mm channel therapeutic scope.

Distal Tip of Stent in Duodenum

There have been discussions about the proper position of the stent, whether the tip should be placed entirely within the bile duct to avoid ascending infections and contamination leading to stent blockage by bacterial biofilm. The original design of the Cotton-Leung stent allowed the distal tip to be placed within the duodenum with the distal flap preventing upward migration. The 1 cm distal tip allows the stent to be captured easily and removed with a snare in case of stent change or removal. It is recognized that considerable effort is required to retrieve an upwardly migrated stent.

The Stent Introducer Mechanism

The early stent introducer mechanism consisted of three layers – a regular Teflon coated .035” guide wire, a 6 FR Teflon guiding catheter with radiopaque markers and a 10 FR Teflon pusher. This three-in-one co-axial layered system was in use for over 10 years before the simplified One Action Stent Introducer System (OASIS) was launched in the early 1990s. Early stenting required deep cannulation of the bile duct and negotiation of the stricture with the guide wire, followed by exchange and inserting the guiding catheter across the obstruction. The guiding catheter provided a stiff “railroad track” for the passage of the stent. The length of the stent could be estimated by reference to the radiopaque markers, set 7 cm apart. A suitable length stent was then chosen and loaded onto the guiding catheter and subsequently deployed using the pusher tube. The more convenient OASIS system

COTTON-LEUNG STENT Continued on page 8
In March 2006, the Cook® Company sponsored and supported the 1st Theoretical/Practical Course of Endoscopic Ultrasound (EUS) organized by the “Endoscopic Ultrasound Interest Group (AEGEUS) of the Spanish Association of Gastroenterology (AEG)”. The meeting was held at the MD Anderson Hospital International España, in Madrid (SPAIN). Angels Gines MD, PhD, and Enrique Vazquez-Sequeiros MD, PhD directed and organized the previously mentioned course as a part of the annual meeting of the Spanish Association of Gastroenterology (AEG) for the year 2006.

After some initial difficulties with getting EUS accepted as a highly valuable technique for diagnosis and therapy by the Spanish medical community, we have assisted in recent years to a real “explosion” in terms of interest for this technique and its tremendous possibilities for securing a tissue diagnosis in a wide variety of diseases. Parallel to this growing interest, a number of EUS Units have been started in different hospitals of Spain, and an increasing demand for EUS guided biopsies has developed. One of the most challenging EUS needles available in the market, with a tremendous potential for diagnosis, mainly in difficult to diagnose diseases (stromal tumors, lymphoma, ...), is the Quick Core, a trucut biopsy needle manufactured by the Cook® Company (Cook EUS-19QC), that has been available in recent years. This needle allows one to obtain a tissue core instead of a cytology smear (as in standard fine needle aspiration EUS needles). Potential advantages of this trucut biopsy needle is that one may perform histology studies of the sample (not with the cytology smears that only allow one to observe a single cell or clusters of cells), and also sophisticated immunohistochemistry studies may be performed.

The main subject of the course was to teach the growing community of Spanish endosonographers the theoretical and practical basis for EUS guided trucut biopsy performance. A total of 31 endosonographers performing EUS FNA at their hospitals attended the Course. The meeting consisted of an initial theoretical part including the technical description of the needle mechanism, how to properly perform a trucut needle biopsy (biopsy technique), when to perform a trucut biopsy, and finally to present which are the possibilities that a tissue core has in terms of pathological studies (immunohistochemistry analysis, etc). The second part of the course consisted of a hands-on session, with participants having the opportunity to handle the needle, preloading it and shooting it to a number of targets. The objective of the second part of the course was that at the end of the meeting, physicians could be comfortable with the technical aspects and usage of this type of needle. Finally, live cases, with participants in the EUS room, were performed to show how to do this type of biopsy in a real case. Participants had the opportunity to learn how to position the scope to properly face the target, how to adjust the needle to the handle of the endoscope, and how to fire the needle inside the lesion in a number of patients.

At the end of the course, participants expressed their "happiness and gratefulness for such a useful course that allows one to have access to teaching endosonographers with experience in the usage of this type of useful but not so easy-to-use needle" and their “willingness to repeat experiences like this in the future”. We, directors and organizers of this course, have to acknowledge that this activity of the Endoscopic Ultrasound Interest Group (AEGEUS) of the Spanish Association of Gastroenterology (AEG) could only become a reality due to the support of the Cook® Company. We want to thank Cook®, and also hope that this is just the beginning for future EUS courses that will help the “Spanish EUS community” to continue growing and progressing in coming years.
Efficient and effective treatment of benign biliary strictures

For four agonizing years, the patient, a 76-year-old female, had experienced pain from numerous recurring bile duct stones. Following an initial ERCP, she had undergone seven additional ERCPs for stone removal. Clearly, another solution appeared necessary.

Fortunately, the patient had access to two key resources: The Division of Gastroenterology at Queen’s University, Kingston Ontario, one of Canada’s leading research intensive universities. Second, her physician, Lawrence C. Hookey, MD, of the Gastrointestinal Diseases Research Unit of the affiliated Hotel Dieu Hospital in Kingston, Ontario, was a gastroenterologist with pioneering experience involving biliary endoscopic procedures.

Dr. Hookey recommended a series of biliary stents, to be added incrementally. Using the Cook Fusion system, he placed five stents side by side, with an exchange every 3-4 months.

“We were able to add stents to expand the stricture, and in one year we will remove all of them,” he noted. “Thus far, the patient has experienced no recurrence of stones and her pain has been significantly reduced.”

A valuable fellowship

For patients and for Dr. Hookey, a fellowship he served in Brussels turned out to be valuable. “During this fellowship, I observed the developmental stage of the Cook Fusion system from the idea through logistics to application,” he says. In addition, Dr. Hookey had some input into the improvements being made in the system.

Earlier procedures were risky and complicated, and they frequently offered only a temporary solution. Another possibility, endoscopic placement of a single stent, appeared
OBJECTIVE
Endoscopic treatment is one of the validated therapeutic alternatives for chronic calcifying pancreatitis (CCP). The biliary-type stents that are normally used have certain drawbacks (entire pancreatic duct is not intubated, lack of flexibility and sideports). A new type of plastic pancreatic stent was recently developed: the Johlin-JPWS model (Cook®). The Johlin-JPWS stent is a multiperforated stent made of flexible plastic (pellethane) with a tapered distal tip (Figure 1).

The objectives of this study were to evaluate its short-term and medium-term efficacy for pain and duct abnormalities, as well as the feasibility of the technique, by comparing its results with those of standard biliary-type stents.

PATIENTS
This retrospective study concerns all patients in our care unit undergoing endoscopic treatment for painful chronic calcifying pancreatitis with ductal obstruction justifying the placement of a pancreatic stent. Efficacy was judged on the basis of clinical criteria (WHO level of analgesics required, frequency of administration), as well as endoscopic and CAT criteria.

METHODS
The patients were divided into 2 groups: [A] those who had been treated exclusively with standard plastic stents of the biliary type, either a Cotton straight stent or a Huibregtse J stent (Cook®). [B] those who had been treated exclusively with a Johlin stent (Cook®). The stent was changed systematically every 4 to 6 months or earlier if a painful relapse occurred.

RESULTS (1)
43 patients were included (1995-2005): Group [A] n=30, Group [B] n=13 (Table 1). The first stent was left in place for 4 months +/- 0.4 (1-11). The duration of follow-up was 16 months +/- 3 (1-68), endoscopic treatment was considered effective in 91% of cases (no difference [A] vs. [B]). It was possible to definitively withdraw the stent from 15 patients (38%) after 12 +/- 3 months (1-34) of endoscopic treatment and 3 +/- 0.5 (1-7) consecutive stent placements.

RESULTS (2)
Efficacy of Initial Stent Placement 41 patients responded to the first endoscopic treatment. The study of survival without painful relapse after the initial stent revealed a higher proportion of asymptomatic patients at 4 months than in Group [B] (92% vs. 58%, p=0.02). (Figure 2)

The only predictive factor for painful relapse,
revealed by means of multivariate analysis, was the type of stent (p=0.07; Table 2). Twenty percent of patients experiencing a painful relapse experienced stent migration. The only factor significantly associated with painful relapse in multivariate analysis was stent obstruction (p=0.05). Eighteen percent of patients in Group [B] had a non-functional stent compared with 54% in Group [A] (p=0.07).

**RESULTS (3):**

**Long-term Follow-up** During the period of follow-up for endoscopic treatment, the stents were left in place for 4 months +/- 0.3 (0.1-15). The rate of painful relapse at 4 months in Group [B] was significantly lower than that in Group [A]: 10% versus 35% (p=0.05; Figure 3).

**CONCLUSION**

Due to its flexible and multi-sideport design, the Johlin-JPWS stent provides better intubation of the entire pancreatic duct. The rate of painful relapse is significantly reduced with this type of stent, as the risk of obstruction tends to be lower. Consequently, in the context of endoscopic management of painful chronic calcifying pancreatitis, it may be possible to decrease the frequency of stent changes. Nevertheless, considering the intra- or extra-ductal migration encountered, it is necessary to modify the stent.

Table 2.

<table>
<thead>
<tr>
<th>Table 2. Multivariate analysis (Cox’s Model): risk factors predictive of a painful relapse.</th>
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<tr>
<td><strong>Univariate</strong></td>
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<tr>
<td><strong>p</strong></td>
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<tr>
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<tr>
<td>Age</td>
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<td>Weight</td>
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On November 2 and 3, 2006, already the “Fourth Update on Coloproctology” will be held in Amsterdam; we are very pleased to invite you for this meeting. This bi-annual event welcomes every time an increasing number of participants from many different countries.

Again, the main goal of this meeting is to inform you about new developments in the field of coloproctology.

As always, the main topics are the live demonstrations from three different theatres. This year proctology, minimal invasive surgery and colorectal cancer will be addressed live.

At the end of the first day of the meeting there will be a dinner for participants and invited speakers which will start with a canal tour in Amsterdam.

Once again we hope that you have the opportunity to attend this 4th bi-annual update and we look forward to meeting all of you!

Willem Bemelman
Frederik Slors

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COTTON-LEUNG STENT

Continued from page 3

combines the guiding catheter and pusher into a single unit using a Luer lock mechanism. Once the guide wire is inserted across the stricture, a suitable length stent is chosen and loaded onto the guiding catheter/pusher system before inserting over the guide wire. Keep in mind the stent length must be determined using other methods as the radiopaque markers set 5 cm apart on the guiding catheter are now used for guiding deployment and the final position of the stent. The stent is advanced over the guiding catheter and deployed by unlocking the guiding catheter from the pusher. With the stent in the final position, the pusher tube is held in position while the guide wire and guiding catheter are withdrawn leaving the stent in place.

The new Fusion OASIS has proven to be helpful in placing multiple stents in the bile duct for the management of benign strictures. Prior to final deployment of a stent, the guide wire can be separated from the guiding catheter and left in the bile duct across the stricture with the intra-ductal exchange (IDE) feature. The next stent can be delivered over the same guide wire eliminating the need to recannulate the stricture thereby cutting down on procedure time.

Shaping the Stent

Because of the varying contour of different bile ducts, as a personal preference, it may be necessary to alter the C-curve on the stent to conform to the curvature of the bile duct. Also, the side flaps may sometimes be collapsed when the stent is removed from the packaging. It is easy to use hot water from a kettle (contained in a plastic kidney tray) to open the flaps and shape the stent and then placing it in cold sterile water. (Use double gloves to avoid scalding one’s fingers in hot water).

Conclusion

Over the three decades since the development of the Cotton-Leung stent, many new designs and materials have been developed, used and evaluated. Expandable metal stents have played an important role in patients with unresectable malignancies. Despite all of these changes, the original Cotton-Leung stent has remained the most popular biliary stent in ERCP practice throughout the world.

References

3. Speer AG, Cotton PB, MacRae KD. Endoscopic management of malignant biliary obstruction: stents of 10 French gauge are preferable to stents of 8 French gauge. Gastrointest Endosc 1988;35:412-7
Jason explains, “We used a three-pronged approach to make this educational activity a success. The CKSGNA used its established network of GI nurses and associates to publicize the course. The University of Kentucky’s Telecare Department also publicized the course within its network and provided the video-conferencing technology that broadcast the program live to eight other centers around the state. Last but not least, the HealthStream-sponsored course afforded each attendee the opportunity to earn one contact hour. This approach resulted in a learning experience that was presented “in-person” to 15 GI staff members and was simultaneously presented to 36 other GI nurses and associates at eight additional centers around the state of Kentucky, all via video-conferencing through the UK Telecare Network. Holly Minder, CKSGNA President-Elect, commented, “This is a wonderful way for us to reach GI nurses seeking educational opportunities around the state. There are many who participated via the UK Telecare Network tonight who could not have driven the 2-5 hours needed to participate in person.”

Educational opportunities are currently available on the following topics: primary sclerosing cholangitis, malignant biliary disease, biliary stone management, endoscopic polypectomy, and options in enteral feeding. Many state universities and other large teaching institutions around the country have departments similar to the UK Telecare Department. Working closely with these departments is a fantastic way to reach a large audience with one presentation! Please contact your Cook Endoscopy Territory Manager to schedule a presentation of interest to your clinicians.

Riddle
How do you provide a continuing education activity on “Biliary Stone Management” to a room filled with 15 GI nurses, yet 51 nurses get contact hours?

Answer
Easy, you partner with the University of Kentucky’s Telecare Department and the Central Kentucky SGNA to deliver the education via video-conference. This is just what Jason Ramsey, Territory Manager for Cook Endoscopy, did on the evening of April 26th.

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The Department of Gastroenterology and Hepatology at Johns Hopkins is all about world-class patient care, education and research to better understand, diagnose, treat and prevent diseases of the gastrointestinal tract and liver. It’s also very much about accessibility.

In addition to the very complex cases, Anthony N. Kalloo, M.D., director of Gastroenterology and Hepatology at Johns Hopkins, places a great deal of importance on the more “routine” procedures and screenings. “We do the mundane stuff, too,” he says. “A few people think we are hard to talk to, difficult to reach and ‘up there’ somewhere, thinking about genetic changes and things like that. Actually, we are very down to earth and very reachable!”

Dr. Kalloo became division chief about a year ago. “It’s quite an honor,” he says. “One of the things I’ve worked hard to do over the last year is improve the infrastructure such that physicians will have quicker and easier access to us when they need to refer patients. And we are committed to making sure the communication with our referring physicians continues after we have evaluated and even treated their patients. That way when the patient returns to their community provider there has been a complete treatment cycle.”

Dr. Kalloo earned his degrees in Medicine and Surgery at the University of West Indies Medical School and interned at Port of Spain General Hospital in his native Trinidad and at Howard University Hospital in Washington, D.C. He completed his fellowship training at the combined Georgetown University, VA Medical Center and NIH program. Prior to joining the faculty at Johns Hopkins in 1988, he was an instructor in medicine at Georgetown University. He has numerous scientific papers and book chapters to his credit, as well as The Hopkins Gastroenterology and Hepatology Resource Center (www.hopkins-gi.org), a 3000-page, multilingual web resource for patients and physicians. He was also associate editor of Gastrointestinal Endoscopy.

Many patients are referred to Hopkins because they have not responded to conventional treatment. Their doctors know that the Hopkins team is doing the latest in cutting edge research, making different therapies available to them. “We have a concentration of expertise in the area,” Dr. Kalloo says. “Most community-based gastroenterologists will see a variety of patients with inflammatory bowel disease, some with liver disease, and so forth. Because we have individual physicians with a single focus such as IBD, viral hepatitis and liver disease, we have more depth and breadth of expertise.”

One exciting initiative is Dr. Marcia (Mimi) Canto’s research with early detection of pancreatic cancer in individuals with no symptoms but with a family history of pancreatic cancer. Dr. Canto developed a system of screening asymptomatic patients using a combination of endoscopic ultrasound and CT to detect pre-cancerous lesions. “We began in 1998 to use a national familial pancreatic tumor registry as a resource for relatives of patients with pancreatic cancer to participate in a screening,” says Dr. Canto. The National Cancer Institute’s Specialized Programs of Research Excellence (SPORE) funded a pilot study of 38 people, followed by the broader,
Phase II study on 78 high-risk people. The first risk group consisted of people with at least two first-degree relatives affected with the disease. “The other high risk group involves a mutation in the STK-11 gene,” Dr. Canto explains. “It’s an inherited syndrome called Peutz-Jegher’s syndrome. With these two groups, we got about a 10 percent yield from the screening. That’s very high.”

The second paper on the pancreatic cancer screening study was recently accepted for publication in the Clinical Gastroenterology and Hepatology Journal. Funding is currently being sought for Phase III, a multi-center study in collaboration with the Mayo Clinic, the M. D. Anderson Cancer Center in Houston and the University of Alabama at Birmingham. The study will be much larger, with at least 200 high-risk participants and will be expanded to include people with the BRCA-2 (breast cancer) gene and pancreatic cancer. “There seems to be a fairly robust association, in that 19 to 20 percent of people with pancreatic cancer have the BRCA-2,” says Dr. Canto. “We will screen people with that known mutation and one known relative.”

In the second part of the study, a pre-cancerous lesion, the intraductal papillary mucinous neoplasm (IPMN) was found. “We are trying to detect this known precursor to pancreatic cancer and intervene before it becomes cancer,” Dr. Canto says. “It might be very significant to find we can do this. This disease is pretty deadly. There’s still a lot of work to do but we are moving in that direction.”

“DOWN TO EARTH AND REACHABLE” Continued on page 15
Mainz, Germany

The Department of Gastroenterology of the US-American Johns Hopkins University School of Medicine (JHU) and the Department of Medicine of the Johannes Gutenberg-University, Mainz (Germany) are planning to do joint research in the field of new endoscopic methods for diagnosis of gastrointestinal illnesses – and have created a formal partnership agreement for this purpose. JHU in Baltimore is one of the most renowned academic research facilities in the United States and is embarking on such a collaboration in the field of gastroenterology for the first time with a European University. In July this partnership was officially sealed with the celebratory signing of a “Memorandum of Understanding”.

“We are very glad to have found such a renowned partner like the Johns Hopkins University for research cooperation”, explains the dean of the Department of Medicine, Prof. Dr. Reinhard Urban. “The extraordinary and internationally recognized research activities in the endoscopic department of the Johannes Gutenberg University, Mainz, have laid the foundation for this cooperation with JHU.”

The partnership will initially focus on two main research areas: Endomicroscopy and mini-laparoscopy. Mini-laparoscopy allows minimally invasive exploration of the abdominal cavity and very subtle diagnosis of liver diseases. This is especially important for the early diagnosis of liver cirrhosis. At the University Hospital in Mainz mini-laparoscopy was established already ten years ago. The miniaturization of the equipment and the careful clinical application was especially advanced through the research efforts of the I. Medicine Division of the University Hospital, Mainz.

Endomicroscopy is a revolutionary endoscopic technique which allows for the first time microscopic imaging of the mucosa during a colonoscopy. “This allows for the first time that cancerous cells can be recognized during the actual endoscopy, which in turn allows a better diagnosis of early stage colorectal cancer”, underscores Prof. Dr. Anthony Kalloo, director of gastroenterology and hepatology at JHU.

Precise and early diagnosis is extremely important for a variety of gastrointestinal diseases, from infections to cancer precursors to full-fledged cancer. Specifically the imaging possibilities in gastrointestinal endoscopy have advanced rapidly in the last few years thanks to intense research. “With the upcoming joint projects we strive to improve early cancer diagnosis further – in the colon, the esophagus and the liver – which will open new doors for patients to achieve a cure”, explains Prof. Peter Galle, Medical Director of the University Hospital, Mainz, Germany and director of the I. Medicine Division. “Goal of the partnership will be to establish projects for early cancer recognition in Mainz and Baltimore. In the future we would also like to expand cooperation to other research-intensive areas in medicine.” In addition there will be an exchange of postgraduate students and medical staff between the two institutions. “For Johns Hopkins University international partnerships are extremely important”, explains Steven Thompson, CEO and Senior Vice President in Baltimore. “JHU hopes for a strong boost in endoscopic diagnosis of early cancers through the planned exchange of scientific knowledge.”

To make the partnership visible to everyone, a plaque will be placed at the main entrance of the University Hospital in Mainz.

For further information please contact:
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Press Department, University Hospital, Mainz
Phone: +49(0)6131/17-7424  Page: 410-434-1245
Fax: 410-935-9677  Email: jpotter@jhmi.edu

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The Certifying Board of Gastroenterology Nurses and Associates, Inc. (CBGNA) is currently celebrating 20 years of certifying over 10,000 nurses. The CBGNA was formed through a generous grant by our sister organization SGNA in 1985. As CBGNA has grown through the years we have been able to offer more and more services to our certificants through electronic communications, website re-designs and now annual submission of contact hours for recertification. CBGNA is also pleased to announce our first open elections taking place for the 2007 board of director terms. However, the most important task before CBGNA is to offer a valid exam through test question development and exam administration as well as recertification standards. It is only through the maintenance of high standards that CBGNA is able maintain our own accreditation and maintain the high value of the credentials our certificants hold.

Thank you to all the gastroenterology nurses who have made the commitment to their profession, their patients and to certification!

Certification—Raising the Bar

Certification was developed to serve a professional community as a means of self-regulation. Unlike licensure which sets a minimum requirement for knowledge level and skill sets, certification acknowledges achievement beyond this base level of knowledge and ensures continued learning and growth through recertification requirements.

Over the years certification has moved from an ‘internal’ professional achievement, to a recognized tangible identification of competency. Regulatory agencies such as JCAHO, NAHQ and ANCC are encouraging certification through their standards. Employers are also encouraging certification through increased salary, certification and continuing education reimbursement.

In an ANCC study, certified nurses reported:
• Greater confidence in practice (51%)
• Greater confidence in decision-making ability (35%)
• Greater confidence in ability to detect complications (28%)
• More effective communication and collaboration with other health care practitioners (23%)
• Fewer adverse events and errors in patient care than before they were certified (6%)

In an ABNS survey of nurse managers it was reported:
• 90% of nurse managers preferred hiring certified over non-certified nurses
• 58% reported seeing a positive performance difference in certified nurses
• 88% responded that if everything else were equal they’d hire a certified nurse over a non-certified nurse

Not only are nurses who are certified, or who manage the hiring of the nursing staff, reporting the importance of certification within their practice, but patients and the general public are also taking note of certification in the nursing profession. ONCC found that in 1999, only 1 in 3 people were aware of nursing certification, and that by 2002, that number had grown to nearly 8 out of 10.

Certification has shifted dramatically over the years from an industry self-regulation that was based on personal goals and aspirations, into a professional standard the public and patients demand. Certification is a means to document competency and ensure patients and the public that certified nurses provide safer patient care. The requirements for recertification through continued learning ensures that certified nurses are able to stay abreast of changes in the healthcare arena, identify potential patient risks and describe health care problems which promote safer care. As patients and the general public become more and more aware of certification as a means to validate competency, it won’t be long before every patient is asking “are you certified?”

A Gala to Remember

CBGNA would like to thank Cook Endoscopy for their continued support of our organization and the CBGNA Annual Gala and Awards Banquet.
This year was a wonderful evening starting off with the Awards Banquet and recognizing the top ten scorers, and top CGN score, for the 2005 exam. Next, South Carolina Low Country received the “Outstanding Certified Region Award.” This award recognizes the SGNA Regional Society who had the highest percentage of members pass the certification exam in 2005. Last, but not least, Georgette Knoebel, BSN, RN, CGRN was honored with the GI Professional of the Year Award for her continued commitment to certification and educating the general public.

At this year’s Gala, CBGNA also recognized two board members whose terms were ending. Mary Bush, BSN, RN, CGRN and Diane Thompson, BA, LPN, CGN served on the CBGNA Board of Directors for over seven years each. Their dedication, time and commitment was invaluable to the organization and we can’t thank them enough for all their efforts throughout their time with the organization.

CBGNA also welcomed their newest board members, Dianna Burns, BS, RN, CGRN; Georgette Knoebel, BSN, RN, CGRN; Kathryn Miller, RN, CGRN; and Jenny Parkhurst, RN, CGRN. Thank you to all who attended the CBGNA Annual Gala and Awards Banquet and thanks again to Cook Endoscopy for their continued support of CBGNA and gastroenterology nursing certification.

CBGNA 2006-2007 Board of Directors

- President- Nancy Eisemon, RN, MPH, APN/CNS, CGRN
- President-Elect- Rosiland McKeon, RN, BS, CGRN
- Secretary/Treasurer- Ann Hayes BS, RN, CGRN
- Immediate Past President- Cathleen Bolton, RN, CGRN

Directors:

- Dianna Burns, BS, RN, CGRN
- Nancy Megow, RN, CGRN
- Jenny Parkhurst, RN, CGRN
- Gail Steele, LPN, CGN

- Georgette Knoebel, BSN, RN, CGRN
- Kathryn Miller, RN, CGRN
- Barbara Schwant, BSN, RN, CGRN
- Sandra Thomas, RN, CGRN
- Donna Davison-Smith, Public Member

COOK Endoscopy

Cook Endoscopy is proud to be a long-time supporter of CBGNA and its core message: To be competitive, nurse specialists must keep up – and to compete in modern nursing means getting certified.

“Certification has shifted dramatically over the years from an industry self-regulation that was based on personal goals and aspirations, into a professional standard that the public and patients demand.”

We believe that certification is not only paramount for nurse specialists in the field but also for those who are part of our company. That’s why we’re especially proud of two of Cook Endoscopy’s key clinical experts – Brenda Spain-Stewart, RN, BSN, CGRN, and Melissa H. Clark, RN, BSN, CGRN – who recently received CBGNA Certification.

As Cook Endoscopy’s Clinical Affairs and Education Specialists, Brenda and Melissa train our sales representatives in the clinical side of our business. Their CBGNA Certification demonstrates their dedication to professional excellence and their true understanding of what it takes to provide the best possible product to enhance patient care.

We congratulate them both for their commitment to continued learning, to our company, and to our ultimate customer – the patient.

Paul Thuluvath, M.D., Director of Hepatology and Medical Director of Liver Transplantation, is working to find new ways to treat liver cancer, as well as new biomarkers to diagnose the disease at an early stage. “Liver cancer has become increasingly common because of hepatitis C and hepatitis B,” he says. “Hepatitis C is very common in this country, with four million people carrying this infection. Worldwide, 1.5 million people die each year of liver cancer. It’s the sixth most common cancer.”

One of Dr. Thuluvath’s main areas of interest is outcomes in liver transplantation. “Liver transplants have come a long way from the 80’s,” he says. “Almost 90 percent of people who get it live five years or more. We are trying to improve that and are looking at many aspects.”

In related clinical trials, Dr. Thuluvath is working on new treatments for hepatitis C and hepatitis B, as well as some of the complications of liver disease, including portal hypertension, ascites, and hepatorenal syndrome. “It’s all one common field,” he says. “This is what happens in patients as liver disease progresses. We are trying new treatment modalities for these conditions.”

Some of Dr. Thuluvath’s colleagues are working on another common disease, non-alcoholic fatty liver disease (NAFLD). “This is becoming a huge problem because of the obesity in this country,” he says. “Almost 90 percent of people who get it live five years or more. We are trying to improve that and are looking at many aspects.”

In related clinical trials, Dr. Thuluvath is working on new treatments for hepatitis C and hepatitis B, as well as some of the complications of liver disease, including portal hypertension, ascites, and hepatorenal syndrome. “It’s all one common field,” he says. “This is what happens in patients as liver disease progresses. We are trying new treatment modalities for these conditions.”

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Dr. Kalloo notes that there is no other screening tool for pancreatic cancer. “Usually, it’s too late by the time we diagnose it,” he says. “The surgery is usually palliative. It’s amazing that we have a chance of doing a life-saving procedure in a patient who otherwise would develop a cancer that is not curable. I think that what Dr. Canto is doing is truly life-saving research.”
Almost 500 people representing more than twenty countries attended the 2nd Annual Crystal Awards Dinner hosted by ASGE and the ASGE Foundation on Sunday, May 21 at the Dorothy Chandler Pavilion, former home of the Academy Awards in Los Angeles. The event raised close to $150,000 for the ASGE Foundation, which will directly support GI endoscopic research and public education.

The ASGE Crystal Awards symbolize the finest in leadership, research and scientific pursuit. Like last year’s inaugural event, the awards dinner was an opportunity for colleagues, trainees, mentors, friends and family to come together to honor the achievement and dedication of the 2006 ASGE award recipients. Held in conjunction with Digestive Disease Week (DDW), the program not only paid tribute to recipients of the Society’s highest honors, but also raised funds for critical gastrointestinal endoscopy-related research and public education initiatives.

Following an impressive multi-lingual greeting from Master of Ceremonies David Carr-Locke, MD, was the presentation of the honorary awards, including ASGE’s highest tribute, the Schindler Award, as well as research awards, including the Career Development Awards.

Colleagues, friends and family cheered as 2005-06 ASGE President Rob Hawes, MD presented Nib Soehendra, MD with the President’s Award in recognition of his exceptional contributions to the Society and its mission. Dr. Hawes also presented Michael Kimmey, MD, with the Schindler Award and Basil Hirschowitz, MD with the honor of the Special Recognition Award for their unique contributions and series of achievements in the field of gastrointestinal endoscopy.
“The evening was absolutely lovely. It is wonderful to see people from all over the world gather together and celebrate the achievements of these extraordinary folks,” said Ian Gralnek, MD, Chair of the ASGE Research Committee.

This important event raised money, recognized accomplishments and encouraged camaraderie. “It was a feeling of elation to be honored by our Society in the presence of the elite endoscopists of America and the world. I was so proud to share this honor with my family, teachers, mentors and colleagues,” said Ananya Das, MD, 2006 Olympus Career Development Award winner.

Other 2006 Crystal Awards and winners include:

**Distinguished Service Award**
Maurits J. Wiersema, MD, Indiana Medical Associates Inc., Fort Wayne, Ind.
This award is presented to an individual who has made long-term contributions to gastrointestinal endoscopy in the areas of equipment research and development and who has been a strong supporter of the educational and research mission of the Society.

**Cook Endoscopy Career Development Award**
Christopher C. Thompson, MD, Brigham and Women’s Hospital, Boston, Mass.

**Olympus Career Development Award**
Ananya M. Das, MD, Mayo Clinic, Scottsdale, Ariz.
Julia K. LeBlanc, MD, Indiana University, Indianapolis
The Career Development Awards support junior investigators working toward an independent research career in any area of GI endoscopic research. The award, totaling $150,000 over a two-year period, funds research relevant to the field of gastrointestinal endoscopy and allows for dedicated research time. The 2006 awards are supported by educational grants from Cook Endoscopy and Olympus.

**Don Wilson Award**
Grant F. Hutchins, MD, University of Nebraska (Omaha) Medical Center
Prasun K. Jalal, MD, Long Island Jewish Medical Center, Floral Park, N.Y.
Uzma Siddiqui, MD, Yale University School of Medicine, New Haven, Conn.
This award provides advanced fellows or junior faculty the opportunity to train outside of their home country with a premier gastrointestinal endoscopist or group to advance their training. The award is named in honor of Don Wilson, MD, co-founder of Cook Endoscopy, who was a strong advocate and supporter of international education and training in gastrointestinal endoscopy. It is underwritten by a grant from Cook Endoscopy.

“The Don Wilson Award is a practical way to encourage learning and dialogue across continents,” said ASGE International Committee Chair, Firas Al-Kawas, MD. “I know that Drs. Hutchins, Jalal and Siddiqui will benefit from their training, as others have.”

promising, but in many cases, single stents proved to be inadequate due to recurrence of the strictures.

In an attempt to avoid biliary surgery, Dr. Hookey found a solution through the placement of multiple stents.

The challenge of placing multiple stents endoscopically

Dr. Hookey knew that placing multiple biliary stents endoscopically posed its own set of challenges. Earlier systems lost access across the stricture to the proximal bile duct, and the more stents that were placed, the tighter the lumen.

Today, post sphincter-ization or post surgical, Dr. Hookey uses the Oasis Fusion System. “The Fusion equipment is effective and efficient, he says. “Fusion really comes into its own when placing multiple stents in a duct.”

“Fusion allows leaving in the wire to place 5-6 stents side by side in an intraductual exchange,” he continues. “The endoscopist has constant access to the duct. It saves a dramatic amount of time and trouble. Also, we can place a temporary pancreatic stent which will fall out after a week or two.”

Nearly 90% success rate

The diameter of the bile duct tends to increase with time as multiple stents are inserted. This enables the endoscopist to increase the number of stents to be placed in the next stent exchange. Thus, increasing the number of stents in each session incrementally increases the radial force in the duct. The total time required is approximately 12-18 months, or until the stricture completely disappears. With multiple stents placed side-to-side, endoscopists have achieved more than an 89% success rate.
The gastroenterology department was established in 1998 and has two sections. The inpatient ward section is a large department with 8 beds for intensive care, 10 beds for intermediate care and 14 beds for standard care.

The outpatient section has specific endoscopy rooms and other specialized outpatient departments. Currently we have 45 employees.

The chief doctor and head physician of our department is Mrs. Shonová, MD. Two of my closest colleagues are departmental Sisters, Mrs. Járová and Mrs. Tichá. The three of us manage our department to the best of our abilities. Our head physician is an extraordinary person. She has founded our department and was successful in implementing a lot of excellent ideas. She was instrumental in getting the department equipped with state-of-the-art computer technology and instrumentation. She also devised our labour program. She is an excellent physician and trains young physicians, both in the Czech Republic and other European countries, where she is well known. A team of physicians thus follows her footsteps in gastroenterology, endoscopy and internal medicine.

We are very fortunate to work with the best technology and the procedures we practice include gastroscopies, colonoscopies, ERCP’s (endoscopic retrograde cholangio-pancreatography), sonography, endosonography, pH-metry, manometry, and other procedures. It takes one day to order and schedule examinations, but emergency operations are carried out immediately.

We also closely monitor and treat patients in specially equipped emergency rooms. Our gastroenterology department is modern and beautiful. The nurses and staff find working in this field to be very interesting.

We treat 17,000 patients every year in our department, many of which have colorectal, immunological and inflammatory diseases. Our work and care of patients is on a very high level. We are interested in the quality of life for our patients and try to help them to improve their quality of life not only with treatment, but also with psychological care, personal advice and a kind, compassionate approach. Our department actively monitors preventive care for various digestive tract illnesses, colorectal carcinoma, intestinal inflammations, IBD, Crohn’s disease and Ulcerative Colitis. We also engage in research studies and statistics of monitored treatment, and participate in the statistical processing of these data and information. We hope that our work will result in determining the possible causes and cures for these illnesses.

In our department, we have the first Czech IBD register, whose author is Mrs. Shonová, our chief physician. For many years, this project has been supplied with important information and processed by a computer firm into a wealth of important statistical data that, I hope, will contribute someday to the detection and localisation of causes and origin of inflammatory bowel disease.

Lenka Klimova, Head Nurse

While he clearly enjoys spotlighting the accomplishments of his colleagues, Dr. Kalloo is a true pioneer in his field. Among his several patents is the use of botulinum toxin in the gastrointestinal tract to relieve spasms. The Botox causes the muscles to relax and is effective in treating certain GI disorders including achalasia and anal fissures. Research is continuing into treating obesity by injecting the toxins into the stomach.

Another of Dr. Kalloo’s pioneer projects involves the use of cryotherapy in the GI tract to treat mucosal vascular lesions. This application was recently approved by the FDA and will be marketed soon.

The project that Dr. Kalloo describes as most exciting is his work in transgastric surgery, also known as incisionless abdominal surgery or natural orifice surgery. The premise is that any procedure that is now performed laparoscopically can be done without making an incision to the abdominal wall. Instead, the peritoneal cavity is reached through the stomach and the stomach through the mouth. Animal studies in the lab were used to look at the technical feasibility of such an approach. “We will take cholecystectomy as the prototype, but it could be any abdominal procedure – gastric bypass, splenectomy,” says Dr. Kalloo. Since beginning the work in 1999, Dr. Kalloo has published multiple papers from the animal lab.

“Based on our publications, a physician in India has been successful in two procedures on humans – appendectomy and ligation of the fallopian tubes,” he says. “I’m a little disappointed because I would like to have been the first [to perform the procedure in a human] but, on the other hand, I’m not disappointed because the fact that it was actually done safely gives great credibility to our laboratory work.” A recent journal editorial calls transgastric surgery, “the dawn of a new era.”

For more information about the groundbreaking work of The Department of Gastroenterology and Hepatology at Johns Hopkins Medicine, call 410-955-9697 or visit www.hopkins-gi.org.

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UPCOMING 2006-2007 EVENTS

Indiana University ERCP Workshop (Nurses) Indianapolis, IN Oct 5-6
Boston Live Endoscopy Boston, MA Oct 6-8
XIXth Therapeutic Endoscopy Course Dr. Norman Marcon Toronto, Ontario Canada Oct 11-14
DDW-Japan 2006 Sapporo, Japan Oct 11-14
www.ddw.jp/ddw2006/index_e.html
ACG Las Vegas, NV Oct 20-25
www.acg.gi.org/acgmeetings/
XIVth UEGW Berlin, Germany Oct 21-25
www.uegw2006.de/
Indiana University ERCP Workshop (Nurses) Indianapolis, IN Oct 26-27
Third Joint Workshop on Therapeutic Endoscopy Torino, Italy Nov 17-18
NYSGE New York, NY Dec 14-15
Pancreatic and Biliary Endoscopy Los Angeles, CA Jan 26-28
Rocky Mountain Interventional Endoscopy Denver, Co Feb 15-17

A SNEAK PEEK AHEAD

SGNA Vendor Program
“Techniques to Reduce Post-ERCP Pancreatitis” Baltimore, MD May 20
Paul R. Tarnasky, MD

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