# THE GASTROINTESTINAL PATHOLOGY CLUB NEWSLETTER

VOLUME 5, NUMBER 1

FALL-WINTER, 1986-1987

CONTENTS

# EDITORIAL

## NO BUCKS IN DIARRHEA

This may be the last edition of the G.I. Pathology Club Newsletter! If the upcoming referendum is positive our club will become a society and this will necessitate a change in name for the Newsletter too. Of course we could be conservative and logical. The name G.I. Pathology Society Newsletter (GIPSN) is quite a mouthful and just think of the extrawork for the folks at Index Medicus! With advancing scientific merit our newsletter may have to be listed - as Gastro Intest Path Soc News!! However, why not go for something snappy, dramatic and prestigeous. "Gut" has already been used by the British Society of Gastroenterology, but we could still choose "Bowel", "Enteron" or better still "Hep-Enteron".

To quote Monty Python, "Now for something completely different". Have you noticed how the general public (a.k.a. the great unwashed) irrationally values some things above others. For example, large sums of money are donated to "Save the Whales" campaigns, although most people have never seen these animals except in a zoo. In the name of whales emotions run high, boats are sunk, and human lives risked. However, what about the other animals? Snakes for example are very deserving creatures but who is going to give their life savings to a "Rattlesnake Refuge".

A similar situation exists in science and medicine. Popular (and heavily funded) diseases include leukemia, muscular dystrophy and heart conditions. Towards the bottom of the funding list are the G.I. diseases - even colon cancer, the second commonest cancer to kill men and women. Diarrhea is absolutely the least trendy affliction - no yuppie would ever admit to such a problem. Its as popular as rattlesnakes! Now we all know this is not fair and that inflammatory bowel disease is a major cause of ill health in the young, but now can we get this message across to the general population.

By its own efforts the GIPC is unlikely to reverse this situation. We need rock stars, movie actresses etc. to help us out. It could have been expected that the President's colon cancer would create more than a passing public interest in G.I. disease. This does not seem to have been the case and your editors have no magical solution to this problem. We just have to keep plugging away.

David Owen

GIPC PROGRAM FOR THE IAP MEETING IN CHICAGO

The GIPC will hold its annual Scientific Session on Sunday, March 8, 1987 at 1:30 p.m. in the Red Lacquer Room, Palmer House Hotel, Chicago, Illinois. This is the program:

"GASTROINTESTINAL INFECTIONS"

Moderator: Rodger C. Haggitt

| | |
|---|---|
| 1:30 - 2:00 p.m. | PATHOGENESIS OF GASTROINTESTINAL INFECTIONS<br>Gerald Abrams, University of Michigan, Ann Arbor, Michigan |
| 2:00 - 2:30 p.m. | HISTOPATHOLOGY OF INFECTIOUS ENTEROCOLITIS<br>Christina M. Surawicz, University of Washington, Seattle, Washington |
| 2:30 - 3:00 p.m. | *CAMPYLOBACTER PYLORIDIS* AND OTHER NEW INFECTIOUS AGENTS IN THE GASTROINTESTINAL TRACT<br>John Yardley, Johns Hopkins Hospital, Baltimore, Maryland |
| 3:00 - 3:30 p.m. | RECESS |
| 3:00 - 4:00 p.m. | IMMUNOHISTOLOGY AND IN-SITU HYBRIDIZATION IN THE DIAGNOSIS OF GASTROINTESTINAL INFECTIONS<br>Robert Hackman, Fred Hutchinson Cancer Research Center, Seattle, Washington |
| 4:00 - 4:30 p.m. | INTESTINAL MUCOSAL DEFENSE MECHANISMS<br>David F. Keren, University of Michigan, Ann Arbor, Michigan |
| 4:30 - 5:00 p.m. | UPDATE ON COOPERATIVE RESEARCH ACTIVITIES |

# AGENDA FOR THE GIPC 1987 ANNUAL BUSINESS MEETING

Sunday, March 8, 1987
Following the Scientific Session
Red Lacquer Room, Palmer House, Chicago

I. Approval of Minutes of 1986 Meeting - Dr. Rickert

II. Financial Report - Dr. Rickert

III. Committee Reports

- A. Announcement of new committee assignments - Dr. Antonioli
- B. Education - Dr. Haggitt
- C. Membership/Nomination - Dr. Rickert for Dr. L. Kahn (to follow New Business)
- D. Publications - Dr. Appelman
- E. Training Programs - Dr. DeSchryver
- F. Microgrants - Dr. Yardley
- G. Newsletter - Dr. Lechago/Dr. D. Owen

IV. Old Business

- A. Name change for the Gastrointestinal Pathology Club - Dr. Rickert

V. New Business

VI. Report of the Membership/Nomination Committee - Dr. Rickert for Dr. L. Kahn

- A. Announcement of New Members
- B. Nomination of Vice President

VII. Election of Officers

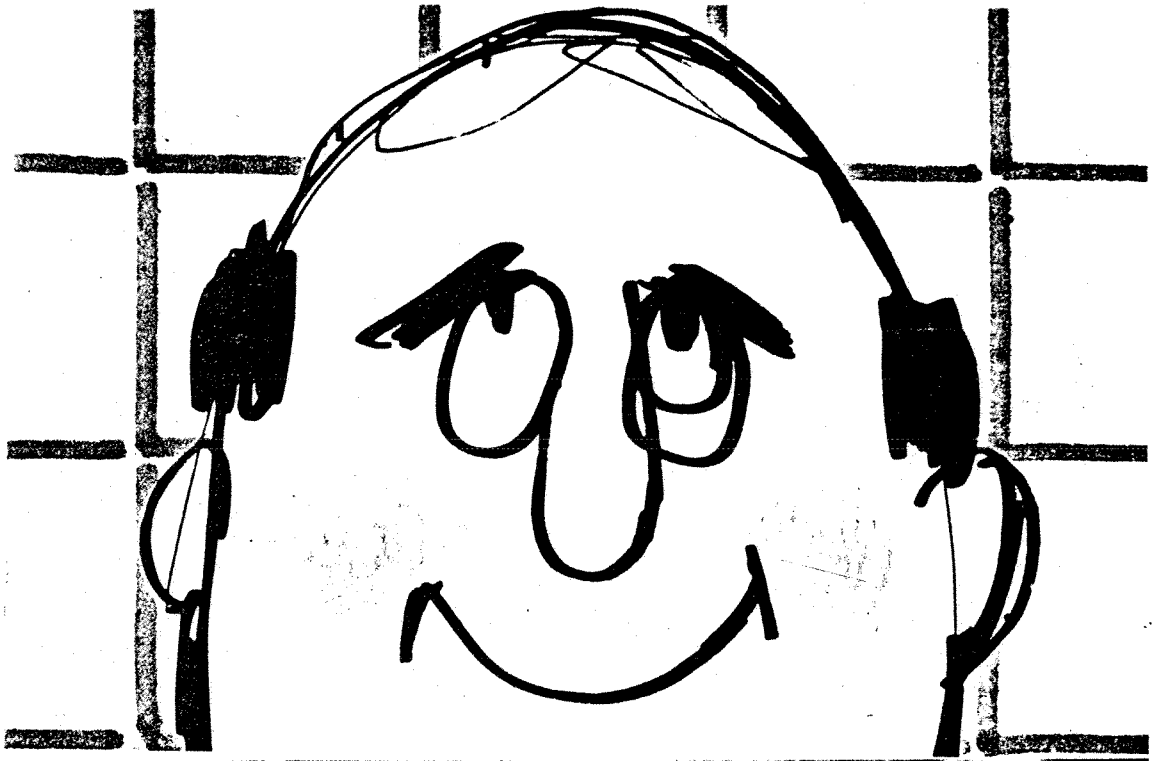
VIII. Induction of New President

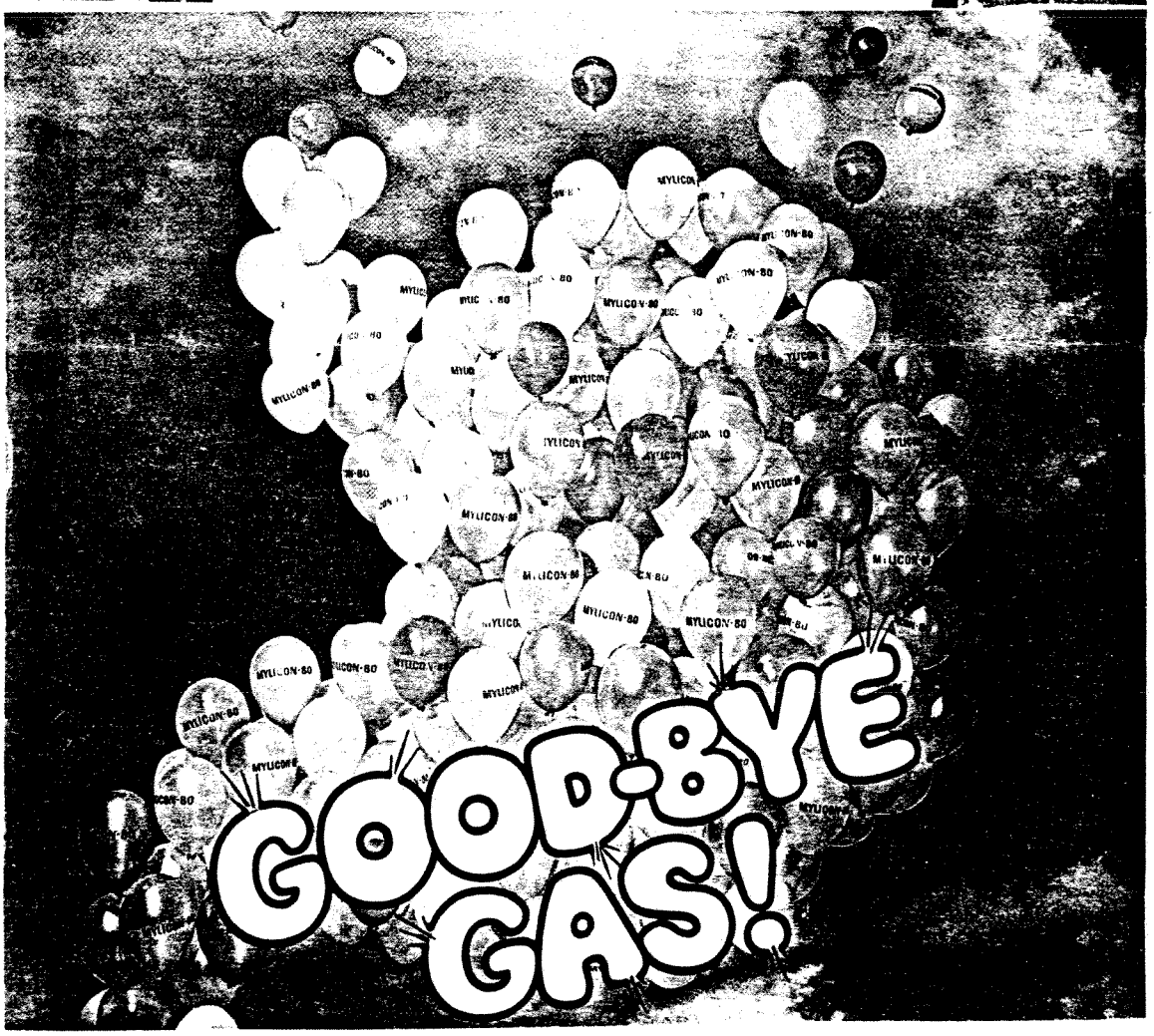
IX. Adjournment

## ANNOUNCEMENT

There will be a Gastrointestinal Pathology Club (or Society?) reception with Cash Bar on Sunday, March 8, 1987, between 6:00 and 8:00 p.m. in the Pivate Dining Room #9, on the third floor of the Palmer House.

Spouses (spice?) are most welcome.




GOOD-BYE
GAS!

## NOTE FROM THE PRESIDENT

As the new year begins, we are only a few weeks away from our Annual Meeting at the IAP. Dr. Haggitt has arranged what promises to be an exciting and informative program on the newest issues in G.I. infections. Remember that we are starting something new this year: a reception for the Club membership will be held immediately following the business meeting, from 6:00 to 7:30 p.m. Details will be given at the business meeting; I hope you will all be able to share this opportunity to socialize with one another over drinks and light refreshments.

As you know, the Club is offering support in the form of micro-grants for research projects involving members. Some applications have been received, but we are in a position to review more. Please, contact Jack Yardley, chairman of the microgrants committee, for additional information. Details of the application process for these grants were published in the last issue of this Newsletter.

The microgrant project is one constructive method to use our revenue to benefit the membership. The Executive Committee is interested in hearing your ideas concerning other ways in which the GIPC can become more responsive to your needs. If you have any suggestions for new Club activities, please write to me by March 2, 1987 and I will bring your ideas as "New Business" to the Executive Committee meeting in Chicago on March 8, 1987.

My best wishes for the New Year,

Donald A. Antonioli, M.D.
President

## G.I. PAPERS AND POSTERS PRESENTED AT THE XVIth CONGRESS OF THE INTERNATIONAL ACADEMY OF PATHOLOGY VIENNA AUSTRIA SEPT 1986

This report is submitted by the Newsletters foreign correspondent who braved various terrorist threats and the low value of the dollar in Europe in the interests of science. Your editors wished to bring you information on the activities of our transatlantic and transpacific rivals, sorry - colleagues. Due to limitations on space and time and the fact that your correspondent couldn't be in two places at once (i.e. the bar and the conference) only a selection of the offerings available is presented. This is perhaps excusable in view of the fact that a total of 23 G.I. papers and 50 G.I. posters were included in the program.

LIVER: An immunohistochemical study and in-situ hybridization was performed in cases of non-A, non-B hepatitits by Drs. Schaff and Lapis of the Semmelweis University, Budapest, Hungary in conjunction with Drs Seto and Coleman of the U.S. Food and Drug Administration, Bethesda, Md. They used needle biopsies of liver from 15 patients with non-A, non-B hepatitis and immunostained with an antibody produced by injecting non-A, non-B viral material into chimpanzees. 13 cases were positive with staining present in either diffuse, submembranous or perinuclear distribution. However 2 out of 10 controls were also weakly positive. Hybridization experiments were performed on frozen liver tissue from chimps taken before and after innoculation with human non-A non-B virus. This worked well and positive results were obtained only on post innoculation liver. The authors concluded that both methods offer promise for development into a routine diagnostic method.

A morphologic study of liver cell dysplasia was performed by Drs Roncalli, Tombesi, Ferrari, Borzio, Ramelia and Servida of the Fatebenefratelli Hospital, Milan and the Predabissi Hospital, Melegnano, Italy. These authors measured cytoplasmic diameter, nuclear diameter and nucleolar diameter in cases of liver cell dysplasia and compared their findings with suitable controls from cirrhotic livers and hepatocellular carcinomas. All cases were age matched. They showed that the nucleus/cytoplasm ratio and the nucleolus/cytoplasm ratio of liver cell dysplasia was intermediate between the controls and hepatocellular carcinomas. The nucleus/nucleolus ratio was similar in dysplasia, carcinoma and cases of hepatitis B positive cirrhosis.

Drs Taguchi and Asano from the Nippon Medical School, Tokyo studied the relationship between fibronectin and capillary formation in the livers of alcoholics.

Fibronectin was present in the RER and Golgi of hepatocytes and capillary endothelium. It was also seen in the interstitium of the subsinusoidal areas. Factor VIII was not seen in the sinusoidal endothelium of normal liver, but was noted in the endothelium of newly formed capillaries in alcoholic liver. These capillaries also had a continuous endothelial lining and basal lamina. The authors also noted that their alcoholic patients had a reduced hepatic blood flow (measured by indocyanin green) and postulated that ischemia is the cause of increased fibrogenesis and the new capillary formation is an attempted protective mechanism.

G.I. TRACT: A study of "flat" adenomas of the stomach was demonstrated by Drs. Heilmann and Semmelmayer from the State Hospital in Landshut, West Germany. They examined 93 of these lesions from old people. The tumors were mainly tubular but rarely had papillary forms and had varying grades of dysplasia. Large numbers of gastrin negative endocrine cells were present, and the surrounding stomach showed intestinal metaplasia. The authors queried the malignant potential of these lesions since they occured in rather old people and were not associated with coincident carcinomas.

Drs. Sinha, Srivastava and Nath of K.G. Medical College, Lucknow, India, presented a poster on the pathology of the esophagus in Indian tobacco chewers. They had 49 patients and 39 controls. Biopsies revealed that the chewers had a higher incidence of esophagitis, epithelial hyperplasia and dysplasia (only mild to moderate found) than did the non-chewers.

An elaborate and interesting paper on ectopic gastrinomas was presented by Drs. Bhagavan, Slavin, Goldberg, Rao, Nord and Joshi from the Sinai Hospital of Baltimore; U. of Texas, Galveston; Medical College of Georgia, Augusta; and the Childrens Hospital, Newark, N.J. These investigators studied 5 ectopic gastrinomas with the Z.E. syndrome, and compared their cases with 14 recorded in the literature and with gastrinomas at conventional locations. The 5 ectopic sites were: lymph nodes of gastro-colic ligament, lymph nodes of peri-pancreatic region, lesser omentum, retrogastric region, and the right kidney. Surgical excision of these tumors resulted in a return to normal of the patients serum gastrin levels. All tumors at ectopic and non-ectopic sites had a similar appearance with thick fibrous capsules, hyalinized fibrous septae,and central cystic degenerative changes. The authors conclude that tumors displaying these typical features may be assumed to be primaries even if they occur in abnormal locations.

Drs Feil, Wunderlich, Kovats, Neuhold and Schiessel from the Dept. of Surgery, University of Vienna, studied the prognostic factors affecting local recurrence of rectal cancer after anterior resection. The following factors were relevant with the incidence of recurrence stated:

Duke's staging - 5% recurr for A, 31% recurr for C
Degree of differentiation - Well diff 1.5%, Poorly diff 55%
Gross configuration - Polypoid 15%, Infiltrative 47%
Lymphatic invasion - Present 40%, Absent 20%
Venous invasion - Present 75%, Absent 20%
Perineural invasion - Present 52%, Absent 17%
Margin of clearance - 1cm or less 52%, 3cm or more 15%
Factors found irrelevant to local recurrence were age, sex, and mucin production.

From the Goormatigh Institute of Pathology, State University of Ghent, Belgium, Drs Cuvelier, Barbatis, Mielants, de Vos, Roels, and Veys presented a poster on the bowel pathology of patients with arthritis. They performed terminal ileal and colorectal biopsies on 55 patients with "reactive arthritis" and 53 patients with ankylosing spondylitis. Regardless of HLA B27 phenotype, all patients showed abnormalities consisting of acute and chronic inflammatory changes at both sites. 19 controls without arthritis had normal biopsies. All patients were asymptomatic as far as bowel symptoms were concerned. In a subsequent poster the same group measured the immunoglobulin containing cells in these bowel biopsies and compared them with 25 cases of Crohn's disease and suitable controls. The biopsies from the arthritic patients were indistinguishable from the cases with Crohn's disease. The authors conclude that the arthritis related bowel disease may be an early form of asymptomatic Crohn's disease.

From the University of Calgary, Canada, Drs Hwang, Kelly and Price's poster illustrated the ultrastructural features of early Crohn's disease. 30 patients and 20 controls were studied with attention concentrated on the epithelial/stromal interface. Gaps in the basement membrane were noted and these were of three types. (i) Rupture of basement membrane distant from the cell border of the overlying cell often penetrated by a cell process. (ii) B.M. defect lying below the junction of two epithelial cells. This may contain cytoplasmic protrusions of both cells. (iii) Large B.M. defect associated with histiocytes, lymphocytes or neutrophils. This latter lesion seemed to be highly characteristic of Crohn's.

From the Albuquerque V.A. Hospital, N.M., Drs Listrom and Fenoglio-Preiser presented a poster on the distribution of gastric lymphatics. They used immunocytochemical proceedures to demonstrate factor VIII and laminin basement membrane protein in addition to lectin labelling with Ulex europaeus I. Ultrastructural confirmation of these findings was also carried out. They found that in all areas of the stomach the lymphatics begin as a plexus at the base of the mucosa and penetrate the muscularis mucosa to enter the submucosa. This pattern showed no variation in inflammatory, hyperplastic or neoplastic disease. It was essentiallly similar to that described in the colon.

A study of the endocrine cell profile of Barrett's esophagus and adenocarcinomas of the lower end of the esophagus was presented by Drs Griffin and Sweeney from Trinity College, Dublin, Ireland. They examined 43 esophageal biopsies from Barrett's esophagus, 35 adenocarcinomas with adjacent Barrett's and 26 adenocarcinomas without Barrett's. Argyrophil cells were found in 90% of all Barrett's but were unrelated to the pattern of metaplasia. 82% of cases had serotonin containing cells, 54% had somatostatin containing cells, 20% had secretin containing cells, and 20% had PP containing cells. The hormonal profile was thus small bowel in type. One significant difference noted was that adenocarcinomas arising in Barrett's were more likely to contain serotonin containing cells than those unassociated with Barrett's.

From Guy's Hospital, London, England, and Monash University, Australia, Drs Filipe and Sandey presented a paper on the use of LIMA(large intestine mucin associated antigen) and SIMA(small intestine mucin associated antigen) in the assessment of colonic dysplasia and risk of subsequent malignancy. They examined specimens from 6 patients with colitis and cancer, 31 patients with colitis but without cancer and 41 non-colitic controls. The LIMA staining patterns (immunoperoxidase method) were not significantly different in any of these three groups. However, SIMA was very significantly correlated with the cancer cases and significantly correlated with dysplasia cases. A number of cases were SIMA positive but without dysplasia. These will require follow up to see if they develop dysplasia or carcinoma.

The clinico-pathological features of early gastric cancer in elderly (over 65 years) Japanese was presented by Drs Hirota, Hanashiro and Itabashi from the National Cancer Research Center, Tokyo. They compared 457 cases of early gastric cancer in the elderly with 1143 cases occuring in younger patients. The lesions in the elderly were likely to be smaller and depressed without co-existant ulceration. Signet ring histology was distinctly less common in the elderly, although multiple cancers, adenomas and adjacent metaplasia were commoner.

Lastly, a paper from the Canadian Tumor Reference Center, Ottawa; the University of Alberta; and the University of British Columbia (Drs Nguyen, Jewell, Barr, McCaughey and Owen) studied 4 cases of primary clear cell epithelial neoplasms of the large bowel. Two of these were carcinomas and two were adenomas. Metastasis was excluded as far as possible by follow up and autopsy (one case). Mucin stains were uniformly negative, and the clear cytoplasm was due to glycogen (one case) or fat (three cases). 3 cases were positive for CEA and epithelial membrane antigen. 2 cases were positive for cytokeratin. These findings tend to rule out the alternative diagnoses of renal carcinoma, epithelioid leiomyoma and carcinoid tumor, and establish the entity of primary clear cell tumors occuring in the colon.

## International Group of Gastrointestinal Pathologists

A meeting was held on 4 September 1986 at the Hofburg in Vienna, at the time of the International Congress of the IAP. Present were 32 persons from 14 countries, and a list is appended.

1. Dr. Goldman has spoken with representatives of the various societies and clubs of Australia, Britain, France and USA, and the consensus was that our International Group should remain an informal one. This was reaffirmed at the present meeting, and persons who wish to be a part of this group are encouraged to join one of the existing societies that are listed below. A major goal of the Group would be to promote additional national and regional societies. In the past two years, a new society has formed in Germany, and there are continued efforts in Argentina, Hungary, Italy, and Finland. Dr. Morson will contact persons in China to see whether they would be interested in forming a local society. The extra dues for being a part of the International Group will remain at the reasonable rate of nothing.

2. Existing groups: for those interested in obtaining information and possibly joining an available society, they are listed below.

   Dr. Robin Cooke
   President, Gastroenterological Society, Queensland
   Pathology Department, Royal Brisbane Hospital
   Australia 4029

   Dr. Geraint T. Williams
   Secretary, British Society in Gastroenterology
   Pathologists Group
   Department of Pathology, The Welsh National School of Medicine
   Heath Park, Cardiff CP4 4XN, United Kingdom

   Dr. Claude Degott
   Secretary, Club d'Histologie Digestive
   Departmente of Pathology, Hopital Beaujon
   F 92118, Clichy Cedex, France

   Professor H.F. Otto
   Chairman, Arbeitsgemeinschaft Gastroenterologische Pathologie
   Department of Pathology, University of Heidelberg
   Heidelberg, Federal Republic of Germany

   Dr. Robert R. Rickert
   Secretary-Treasurer, Gastrointestinal Pathology Club
   Department of Pathology, St. Barnabas Medical Center
   Livingston, New Jersey 07039, USA

3. Dr. Goldman will continue to oversee the efforts of the Group, and will be assisted by Drs. Cooke (Australia), Camilleri (France), Heilmann (FRG) and Williams (UK).

4. Activities:
   a. The individual societies and clubs should share newsletters and other announcements. Copy of the Club Newsletter from USA will be sent to representatives of the other societies for distribution. Copy of these minutes and future announcements will be sent to Drs. Sobin and Cotton for possible inclusion in the International Pathology News Bulletin (of the IAP).

   b. We will attempt to meet on a regular basis at the time of future international sessions. Persons attending the meeting were asked to try to make contact with the organizers of the next European Society of Pathology Congress in Prague (September 1987). We would also hope to participate in the next IAP Congress to be held in Dublin in September 1988 (see below). At these meetings, the International Group will serve to sponsor and provide a symposium, have a business meeting, and possibly add some social function (volunteers needed).

   c. It is further hoped that the Group could serve as a nidus for future collaborative studies.

5. Dublin Meeting:
   We were asked to provide a list of topics that might be included in the Symposium on GI Pathology for that meeting, and this will be transmitted to Dr. Williams who is on the organizing committee. The strongest sentiment appeared to be for the Interpretation and Reporting of Gastrointestinal Mucosal Biopsies. Other topics mentioned included infection, immunology, tumors of the esophagus and stomach (all ~~were~~ OR junctional), and neuromuscular disorders.

I thank you all for coming and for supporting the effort, and I look forward to the third round of our Group activity, perhaps in Prague, but definitely in Dublin.

Sincerely,

Harvey Goldman, M.D.
Professor of Pathology
Department of Pathology
Beth Israel Hospital
330 Brookline Avenue
Boston, MA 02215
USA

HG:pkg

Akagi, Tadaatsu (Okayama, Japan)
Bajtai, Attila (Budapest, Hungary)
Begnis, Mario (Rosario, Argentina)
Borchard, Franz (Düsseldorf, FRG)
Bosman, Fred (Maastricht, Netherlands)
Camilleri, Jean-Pierre (Paris, France)
Capella, Carlo (Varese, Italy)
Cortes, Carlos (Bucaramanga, Colombia)
Cremer, Hartmut (Köln, FRG)
Cuvelier, Claude (Ghent, Belgium)
Deligeorgi-Politi, H. (Athens, Greece)
Dixon, M.F. (Leeds, UK)
Fenoglio-Preiser, Cecelia (Albuquerque, USA)
Filipe, M. Isabel (Londonbridge, UK)
Fiocca, Roberto (Pavia, Italy)
Goldman, Harvey (Boston, USA)
Gourley, William (Galveston, USA)
Heilmann, Konrad (Landshut, FRG)
Henry, Kristin (London, UK)
Hirota, Teruyuki (Tokyo, Japan)
Jarvi, Osmoh (Turku, Finland)
Jass, Jeremy (London, UK)
Lewin, Klaus (Los Angeles, USA)
Lomvardias, S. (Brooklyn, USA)
Morson, Basil (London, UK)
Nagayo, Takeo (Nagoya, Japan)
Owen, David (Vancouver, Canada)
Schlake, Werner (Gelsenkirchen, FRG)
Sipponen, Pentti (Espoo, Finland)
Stalte, Manfred (Bayreuth, FRG)
Takara, Eiichi (Hiroshima, Japan)
Wight, Derek (Cambridge, UK)