

Almanac

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UNIVERSITY OF PENNSYLVANIA

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Harnwell Seeks Expression of Opinion On Revising University Calendar

Students and members of the faculty and administration of the University of Pennsylvania have been asked to express their opinions on revision of the University calendar for the 1970-71 academic year by Dr. Gaylord P. Harnwell, president of the University.

Consideration of a calendar change has been requested by students and faculty members who wish to participate in pre-election activities this fall.

In a letter mailed Friday, June 26, Dr. Harnwell asked students, administrators, and faculty members to express their opinions on three alternative courses of action:

I. Make the 11 days preceding and including November 3 an "unstructured period" during which the University will remain open but for which faculty and students in each course may work out mutually satisfactory arrangements which will free those interested to participate in election activities and, at the same time, ensure that required course material is covered.

II. Make no change in the University calendar.

III. Make October 24 - November 3, inclusive, days of recess, continue classes until December 23, and have final examinations in the period January 11-16.

At its May meeting, the University Council, which is the highest ranking advisory body to the President and which has faculty, student, and administration members, resolved "that the President consider a modification of the calendar in order to provide a fall recess during which students and faculty may participate in special projects including our country's electoral process." Dr. Harnwell appointed a calendar study committee under the chairmanship of Dr. Richard S. Woods, professor of accounting, to examine the implications of possible calendar changes in the undergraduate schools and in the Graduate School of Arts and Sciences. The calendar study committee recommended alternative I., above, to the President.

In his letter asking faculty and students to express their opinions by return postcard on the calendar change alternatives, Dr. Harnwell said, "Taking into account the varying points of view expressed in the Council debate, the report of the calendar study committee, and the

individual concerns expressed in letters to me, I have concluded that those persons who will be most affected by any calendar change should be given an opportunity to express their preference among the major alternatives before a final decision is reached."

TEXT OF PRESIDENT'S LETTER

At its May meeting, the University Council gave consideration to various proposals involving possible change in the University calendar which would permit students and faculty to be involved in the electoral process next fall. Following extended discussion, the Council adopted a resolution recommending "that the President consider a modification of the calendar in order to provide a fall recess during which students and faculty may participate in special projects including our country's electoral process." Specific characteristics were cited for consideration.

A calendar study committee comprising faculty, students, and administration under the chairmanship of Professor Richard S. Woods was appointed promptly to examine the implications of possible calendar change in 1970-71 in the full-time undergraduate schools and the Graduate School of Arts and Sciences. This committee has now completed its inquiry and has submitted a unanimous recommendation, which is detailed in the accompanying document.

Taking into account the varying points of view expressed in the Council debate, the report of the Calendar Study Committee, and the individual concerns expressed in letters to me, I have concluded that those persons who will be most affected by any calendar change should be given an opportunity to express their preference among the major alternatives before a final decision is reached. Accordingly you will find on the enclosure a summary statement for three possible calendars; you are asked to indicate on the postage-paid reply card your *single* preference for the academic year 1970-71. Please return this card promptly in order to assure an early decision and

announcement of the 1970-71 calendar.

Your cooperation in expressing your opinion on this question which is of some import to the entire University community is appreciated.

RECOMMENDATION OF THE CALENDAR STUDY COMMITTEE

A number of plans were considered, including starting school early (which housing arrangements will not permit), and deferral of final examinations until January (which would affect the beginning of the Spring term). The experience of the recent Spring examination period was reviewed, in which optional arrangements were successfully developed which allowed students to participate in strike activity without penalty, while also allowing others to complete their academic work on schedule.

The Committee unanimously favors an unstructured fall period during the eleven days prior to and including November 3rd (Election Day), in which faculty and students would work out a plan for each course permitting optional arrangements for covering course content. By October 1 each instructor would come to an agreement with his students on the procedures to be followed during the unstructured period, including a decision as to whether classes will be held at the scheduled times, at alternate times (such as Saturdays), or whether an appropriate instructional surrogate will be used.

Coverage of course materials would be expected, but not necessarily by formal classroom work. In the event a class elects to meet in the usual manner and to discuss course material in the usual way, students deciding to be absent would not be directly or indirectly penalized for such absence. Instructors should arrange alternatives for such students. In no case should faculty members *require* papers, examinations, or class presence during this period. In cases where students and faculty are unable to arrive at mutually satisfactory arrangements, mediation should be undertaken by the Department Chairman or, if necessary, the Dean.

Faculty Members Criticize University Proxy Handling

Four faculty members of the Wharton School of Finance and Commerce at the University of Pennsylvania, representing a group of interested Wharton administrators and faculty members, have expressed deep concern over the University's handling of the General Motors proxy issue in a meeting with President Gaylord P. Harnwell.

See related articles on Page 3.

Their major concern centered around what they regard as a failure on the part of the University to inform faculty and students that the April 6 report of the action of the Trustees' investment committee had been subsequently amplified.

The April 6 committee action was reported as follows:

"The Committee voted to give the Chairman authority to vote the General Motors Proxy, including a vote 'for' the two Resolutions, which the management opposes, if they are written as outlined in the newspapers."

This action was widely reported and interpreted as constituting an unqualified commitment to vote the University's shares in favor of the proposals of the Project on Corporate Responsibility. No statement was issued by the University refuting this interpretation.

The minute of the meeting was subsequently amended to indicate the discre-

tionary nature of the authority granted the chairman of the committee and that further study of proxy material would be needed before a final decision was made. However, the amplified minute was not disseminated other than in responding to queries from the news media and interested individuals.

The Wharton faculty members also took exception to the timing of the University's news release of May 20 announcing its decision to vote its 33,300 shares for GM management. They expressed the belief that the announcement of the University's decision two days prior to GM's annual meeting precluded any opportunity for student and faculty reaction to the decision since commencement had been held and many students and faculty members had left the campus.

President Harnwell expressed regret that the situation had occurred. He indicated to the Wharton faculty members that he would welcome a proposal to insure that in the future University constituencies will have an opportunity to be informed and heard in advance of public announcements of this type.

Meeting with Dr. Harnwell were J. Scott Armstrong, Peter T. FitzRoy, Leonard M. Lodish, and Robert W. Nason, all assistant professors in the marketing department of the Wharton School.

Trustees Establish New Committee For Urban Affairs

A Trustees' Committee on Urban Affairs has been set up to develop policy on the University's role in the urban environment, Chairman William L. Day has announced.

It will be headed by John W. Eckman, president of William H. Rorer Inc. and member of the Quadripartite Commission on University-Community Development.

Its six additional members will be:

Gustave G. Amsterdam, Esq., board chairman and president of Bankers Securities Corp. and former chairman of the Philadelphia Redevelopment Authority;

Richard C. Bond, chairman of the board of John Wanamaker Philadelphia Inc., chairman of the executive committee of the Greater Philadelphia Movement and co-chairman of the Urban Coalition;

Marcus A. Foster, associate superintendent for community affairs of the Philadelphia Board of Education who became superintendent of schools in Oakland, Cal., July 1;

Judge A. Leon Higginbotham of the U.S. District Court, vice-chairman of the U.S. National Commission on the Causes and Prevention of Violence;

Ernest Scott, Esq., chairman of Pepper, Hamilton & Scheetz, former chancellor of the Philadelphia Bar Association and immediate past president of the Philadelphia Bar Foundation; and

Robert L. Trescher, Esq., partner of Montgomery, McCracken, Walker & Rhoads, also a former Philadelphia Bar Association chancellor and a member of the American Bar Association's Committee on Federal Judiciary.

The new committee will deal with policy on community relations, joint University-community programs, the Quadripartite Commission, Universities Related Schools programs, and relations with other urban or regional institutions concerned with developing and implementing solutions to the urban challenge, Mr. Day said.

It grew out of an ad hoc Trustee committee which had been advising the President and his Assistant for External Affairs, Francis M. Betts, in such programs earlier.

Dr. Henry Abraham Named Chairman-Elect Of University Senate

At its May meeting, the University Senate chose Dr. Henry J. Abraham, professor of political science, as its chairman-elect. He will succeed Dr. Herbert Callen, professor of physics, the present chairman, next spring.

Other officers elected were: Secretary-elect—Dr. Alan C. Kors, Assistant professor of history.

Committee on Academic Freedom and Responsibility—Dr. Stuart W. Churchill, Carl V.S. Patterson Professor of Chemical Engineering; Dr. Donald N. Langenberg, professor of physics.

Senate Advisory Committee—Dr. Harold S. Ginsburg, professor of microbiology; Dr. Paul Rozin, associate professor of psychology; Dr. Paul J. Taubman, associate professor of economics; Dr. John Wideman, associate professor of English.

Superblock Opens To 90% Capacity Despite Strike

Approximately 90% of the Superblock student housing complex will be ready for occupancy by September 1, and space has been provided in older dormitories for the 360 or more students whose rooms will not be ready at that time, Gerald L. Robinson, dean of residential life, has announced.

The entire complex is expected to be finished in October to house a total of 3,848 students.

Work on the \$62 million project was halted May 1 when Philadelphia construction workers went on strike. Following settlement June 15, the existing work force was joined by men from other projects to accelerate the Superblock's completion, Dean Robinson said.

By September 1 the two four-story units—Low Rise South and Low Rise West—should be finished on all floors, and the 24-story High Rise South will be complete except for six apartments. Interiors in High Rise East's upper floors will still be undergoing completion and furnishing.

Students who have signed occupancy (continued on page 4)

Eight Receive Guggenheim Fellowships

Eight University of Pennsylvania faculty members have been awarded Guggenheim Fellowships for research during the 1970-71 academic year. They are Dr. Albert K. Ando, professor of finance and economics; Dr. Derk Bodde, professor of Chinese studies; Dr. S. D. Goitein, professor of Arabic; Dr. Nicholas K. Gonatas, professor of neuropathology in the School of Medicine; Dr. Shinya Inoue, professor of biology; Dr. Robert M. Netting, associate professor of anthropology; Dr. M. Frank Norman, assistant professor of psychology; and Dr. Shoichiro Sakai, professor of mathematics.

With a total of eight Guggenheim Fellows this year, the University of Pennsylvania ranks fifth nationally and shares this rank with Cornell University, the University of Illinois at Urbana-Champaign, Indiana University, Princeton University, the University of Wisconsin at Madison, and Yale University.

Dr. Albert Ando, professor of finance and economics, will conduct research on studies in theoretical econometrics at Pennsylvania and at the Center for Operations Research and Econometrics at the University of Louvain in Belgium. For the past four years, Dr. Ando has been director of a study developing an econometric model for analyzing economic policies, sponsored by the Federal Reserve Board through the Social Science Research Council. This study is being conducted jointly at the University of Pennsylvania, Massachusetts Institute of Technology, and the Federal Reserve Board. In this study Dr. Ando had encountered theoretical problems in estimation and analysis of large scale econometric models. These problems are encountered with increasing frequency by others who are engaged in similar work, such as the Wharton Econometric Model. He will work on these problems while on the Guggenheim Fellowship.

Dr. Derk Bodde, professor of Chinese studies, plans to do research under his Guggenheim Fellowship on the annual festivals in China during the Han dynasty (206 B.C.-A.D. 220). This was the first period in the history of China when one dynasty ruled the whole nation and from which records permit dating of annual festivals within the framework of a year. Originally there were five dates each year during that period that held significance as the beginning of the new year but eventually these were merged into a single new year festival. Dr. Bodde has taken a special interest in the development of these folk traditions as they have revealed much about the thinking and actions of the ordinary man in those times.

He first became interested in these festivals when he was a student in Peking in the 1930's and his first book was a translation from Chinese of a book about the annual festivals in Peking in the period at the beginning of the century. From that study and from his personal observation of the celebration of these popular festivals in China, he has developed his project to trace the festivals as far back as possible.

Dr. Bodde plans to conduct most of his research at Pennsylvania but also contemplates spending some time working in Japan.

Dr. Robert M. Netting, associate professor of anthropology, plans to spend next year in Switzerland on his Guggenheim Fellowship conducting research on social organization as related to the environment in which people live and the way resources available are used by the society. He will focus particularly on social adjustments which come about as the result of the need to limit population in Swiss villages which have limited natural resources and means of earning livelihoods. Some of the manners of limiting the population in these towns have traditionally been out-migration of children, late marriage, prohibition of marriage in certain situations, and restrictive rules on inheritance of wealth. Dr. Netting, in his research in a small village in the German-speaking area of the Swiss canton of Valais, will also attempt to determine to what extent there has been maintained an equilibrium of population in certain areas. He plans to reside with his family in the village in which he will conduct this research. Switzerland is particularly favorable for Dr. Netting's research because of the extensive historical records of village development dating from the 12th century and including census records, church records, and family genealogies.

Dr. M. Frank Norman, assistant professor of psychology, will conduct research on mathematical learning theories at Rockefeller University in New York City under his Guggenheim Fellowship. He is attempting to formulate classes of models for learning in humans and in lower animals. According to these models the course of learning is a stochastic or probabilistic process and he devotes much of his effort to the mathematical analysis of these processes. He is writing a monograph giving a unified presentation of his work in this area.

As a Guggenheim fellow, Dr. Shoichiro Sakai, professor of mathematics, will visit the following institutions: University of New Castle upon Tyne, England; University of Paris and University of Aix-Marseille, France; University of Hamburg, Germany; University of Oslo, Norway; Aarhus University, Denmark; Kyoto University and Tohoku Uni-

versity, Japan. During these visits, he will study examples of type III-factors, derivations on operator algebras and the Stone-Weierstrass theorem for operator algebras.

Dr. S. D. Goitein, professor of Arabic, will do research at the University of Pennsylvania and at Cambridge University in England to complete a companion volume "Mediterranean People" to his study *Mediterranean Society*. This volume will be comprised of letters and documents from the Cairo Geniza translated from Arabic into English. An unusual characteristic of these documents is that they were written with Hebrew characters but in the Arabic language. The second volume of *Mediterranean Society* which is being published this year by the University of California Press concerns the government and judiciary and other aspects of communal life in Jewish and other communities in the

Arab world of the 10th to 13th centuries around the Mediterranean Sea. The first volume of *Mediterranean Society* concerns the business, working population, finance, travel, and seafaring aspects of these communities during that period.

The documents with which Dr. Goitein is conducting his research reveal life of the middle and lower classes in these communities of which there is virtually no knowledge from traditional historical sources. Among the documents from which Dr. Goitein has conducted his research are business letters of merchant firms trading in the area of Egypt, Sicily and Spain.

Dr. Goitein has been elected this year as a Fellow of the Medieval Academy of America and is also currently serving as president of the American Oriental Society. His first Guggenheim Fellowship, received in 1965, enabled him to travel to Russia to study the Geniza papers located

(continued on page 4)

Provost Selection Committee Seeks Nominations and Data

The Consultative Committee to Advise the President on the Selection of a Provost has invited nominations from University students, members of the faculty and administration, trustees, and alumni.

Nominations and accompanying data should be directed to Dr. Richard M. Sherman, Office of the Secretary of the University, 112 College Hall.

In inviting nominations, the Committee noted that the nominator should provide both pertinent biographical information and a concise statement indicating why the nominator believes the suggested person would be qualified for the office of Provost, with due regard for the guidelines established by the Committee and listed below. The Committee has invited the nomination of women as well as men.

Guidelines adopted are:

1. Commitment to high standards of academic excellence and to the principles of academic freedom and integrity.
2. Responsiveness to the academic needs and aspirations of both faculty and students.
3. Flexibility and imagination in responding to new conditions, new problems, and changing needs. This means that the candidate should possess youthful intellectual creativity.
4. The ability to work harmoniously with the President and to complement him in a mutually agreeable division of responsibility at the highest level of University decision making.
5. The ability to communicate effectively with the faculty and to command their confidence. To ensure this, as well as the commitment to academic excellence and the sensitivity to academic aspirations previously mentioned, it is highly desirable that the candidate be himself a scholar of eminence.
6. The ability to communicate with students and to substitute effectively for the President, when necessary, in handling the University's external relationships. The candidate should recognize the increasing responsibility of the University to the general community.
7. Administrative skill in evaluating the suitability of particular individuals for particular responsibilities, in sensing what procedures are workable in particular situations within an academic community, in establishing good working relationships with the several deans and vice provosts and in organizing his own very heavy work load. Some competence in the budgetary area is also highly desirable.
8. Firmness in his own convictions and the ability to argue those convictions strongly in the forums of the University.
9. Mental and physical vigor and the willingness to commit his energies fully to the requirements of the Provost's office for the term of his appointment.

In outlining the responsibilities of the Provost, the Committee said he reviews proposals related to the appointment, tenure, and promotion of all faculty members with the rank of assistant professor or above; makes recommendations to the President concerning the appointment of departmental chairmen and deans; and, as budgetary officer, reviews proposals for new academic pro-

grams and for the expansion of existing programs.

The Committee said, "The Provost's day-to-day decisions affect primarily the interests and welfare of the faculty and for the most part affect students indirectly through the quality of the faculty attracted and retained and through his budgetary impact on new or expanding programs. The Provost has relatively little formal influence on curriculum or degree requirements, which are determined by the individual schools. While the Student Affairs Division is technically in his charge, the Vice Provost for Student Affairs in practice carries the full responsibility for the administration of this area."

Violence Study Leader Reports on Progress

The concentrated research effort undertaken by the National Commission on the Causes and Prevention of Violence produced substantial advances in data and research techniques in sociology, criminology, and related social sciences, said Dr. Marvin E. Wolfgang, director of the University's Center for Studies in Criminology and Criminal Law, and co-director of research for the Commission.

The Commission pursued research on three principal levels, Dr. Wolfgang said. First, recognized scholars summarized the state of the art in sociology, psychology, and social psychology. Second, the Commission acted as a clearinghouse and coordinating mechanism for research on violence and provided funds to accelerate certain projects. Finally, the Commission initiated a number of major research projects, including:

*** A 150-year study of assassination threats and major riots as reported in American newspapers. This study served to establish a new bank of data on how unusual episodes of violence come about.

*** The firm of Louis Harris Associates was commissioned to do a national survey of individuals' experiences with violence and their attitudes toward it.

*** A report on "Dimensions of Violence in Television Drama" was prepared for the Commission's Mass Media Task Force by a group under the direction of Dr. George Gerbner, dean of the Annenberg School of Communications.

*** A 17-city survey of victim-offender relationships in crime was conducted by the Commission to provide more accurate data on which groups tended to commit the most crimes and which groups were most often victims.

*** A survey was made, with the assistance of the Council of Europe, of the proportions of the national budgets of various nations which are allocated to criminal justice systems.

*** For the Task Force report on "Firearms and Violence in American Life", extensive psychiatric interviews were conducted with imprisoned persons who had committed crimes with firearms to determine their motivations for the use of these weapons.

Dr. Wolfgang said interdisciplinary

Also, the Committee said, the Provost sometimes substitutes for the President in contacts with alumni, governmental bodies, and other elements of the larger community.

In addition to the faculty members of the Consultative Committee, announced in the April 10 edition of *Almanac*, the following students have been appointed: M. Stuart Madden, Jr., a junior in the College; Barbara Perman, a junior in the College for Women; Walter Markham, Graduate School of Arts and Sciences; and Finn G. Isdahl, Jr., Wharton School Graduate Division. Noyes E. Leech, professor of law, is chairman of the Committee.

teamwork of lawyers and social scientists proved particularly fruitful in research work related to drug addiction. He noted that lawyers were most adept at dealing with evidence and the social scientists brought to bear their skills in data collection, hypothesis testing, and statistical analysis.

The 17-city study of victim-offender relationships has already led to the launching of two new projects, Dr. Wolfgang said. The Bureau of the Census has begun a pilot study of crime victims in the Washington, D.C., area; and data gathered in the survey have been used as the basis for computer mapping of crime incidence in six cities. The maps are expected to help police departments use manpower more effectively.

One interesting result of the Commission's work was the compilation of the best-yet statistics on gun ownership in America. The Commission's estimate, believed to be conservative, is that there are 100 million guns owned in this country.

Engineering Magazine Named Best in Field

For the third year in a row, the *Pennsylvania Triangle*, the oldest continuously published undergraduate publication of the University of Pennsylvania, has been named the best all-around magazine by the Engineering College Magazines Associated.

The three consecutive honors entitle the *Triangle* to retire permanently the two-and-a-half foot traveling trophy signifying the ECMA's highest annual award.

In addition, the *Triangle* won two first places, a third place, and four honorable mentions in seven of nine individual award categories. First place in the "best single issue" category went to the November 1969 issue devoted to the study of water. An additional first place in the "best recurring feature" category was awarded to "From Our Top," the introductory column to every issue.

The April 1969 issue dealing with the problems of over population and pollution won third place in the "best single cover" category.

Background on Vote of University's General Motors Stock in Favor Of the Management Position

On April 6, the Investment Committee of the Trustees met and discussed the two "consumer-oriented" proposals of the Project on Corporate Responsibility.

These proposals called for the placing of three new members representing the public interest on the General Motors Corporation Board of Directors and the establishment of a Shareholders Committee for Corporate Responsibility.

The April 6, meeting took place before the Investment Committee received and had an opportunity to study the official proxy solicitation material. In its discussion on this occasion, the committee considered the results of a referendum held the previous week in which students voted 749 to 299 in favor of the proposals; the editorial positions of the two student newspapers in favor of the proposals; and a letter from four Wharton School faculty members respectfully requesting the Trustees to vote for the two proposals.

As noted in the related article on page one, the April 6, committee action was widely reported and interpreted as constituting an unqualified commitment to vote the University's shares in favor of the proposals of the Project on Corporate Responsibility, rather than a granting of discretionary authority in the matter to the chairman of the committee, as well as an indication of willingness to consider the proposals which management opposed.

Because of several days' absence from the country of the Investment Committee's chairman, no public statement was issued by the University seeking to refute or correct this interpretation immediately following its appearance in the press. The matter was discussed further at the Executive Committee of the Board of Trustees on April 10, when the chairman of the Investment Committee was encouraged to seek the advice of his fellow Trustees at their regular stated meeting of May 1.

The minutes of the Investment Committee meeting were subsequently amended as follows:

"The Committee voted to give the Chairman authority and discretion to vote the General Motors proxy when received, including authority to vote for the two resolutions which the management is reported to oppose, if these are written as outlined in the press prior to April 6, and if such a vote appears appropriate following a study of the formal proxy solicitation material."

This minute, amplified to reflect more accurately the intent and sense of the committee's discussions on April 6, was made available upon request to queries from the news media and interested individuals, including the research director of the Project on Corporate Responsibility in Washington, during the interim between April 10 and the public announcement of the final decision on May 20.

Among the publications querying the University News Bureau during this period were *Fortune*, *Wall Street Journal*, *Chronicle of Higher Education*, *Science*, and the *Daily Pennsylvanian*.

No report or comment on the amplified minute appeared subsequently in the *Daily Pennsylvanian* or other campus publications but the following excerpts from *Science* and the *Chronicle of Higher Education* indicate the interpretation given the committee's action as a result of these queries.

"An action by the University of Pennsylvania trustees' investment committee has been widely interpreted as a commitment to support Campaign GM; but, in fact, the committee merely gave its chairman, Howard Butcher III, a conservative Philadelphia broker, discretionary authority in the matter." (*Science* April 24, 1970)

"At Pennsylvania, which owns 33,300 shares, the board of trustees' committee on investments gave its chairman the 'authority and discretion' to vote the proxies but did not bind him to support the proposals." (*Chronicle of Higher Education*, May 4, 1970)

After full discussion of all the issues involved in the proxy controversy at the

May 1, Trustees' meeting, the Chairman was authorized to seek consultation with fellow Trustees, alumni and other persons thought to be especially knowledgeable on the subject and then to exercise the previously granted discretionary authority.

The University's decision to vote its 33,300 shares of General Motors common stock at the Corporation's annual meeting on May 22, in support of the recommendations of the GM board of directors was announced publicly on May 20, by the University President Gaylord P. Harnwell.

SUMMER ISSUES

The emergence at press time of such major developments as the possible change in the University calendar and the implications of the spring construction trades strike on our undergraduate and graduate housing capabilities prompted delaying the publications of our traditional end-of-the-year issue in May or June. Both items are covered in this first of two special summer issues. The second—scheduled for August—will contain an enlarged "Among other things" section to compensate for the omission of this popular feature in this issue of the *Almanac*.

The Editors

New Protein Is Found In Cancer-Victim Tumors

A new protein, called gamma fetal globulin, has been found in the tumors of a significant percentage of humans who had many different kinds of cancer. This is the first such link among tumors of different sorts in man. The protein, an antigen, also occurs in the developing embryo but is not present in newborns or normal adults.

Dr. Eugene M. Edynak, a post-doctoral fellow at the University of Pennsylvania School of Medicine, reported on the new protein and the occurrence of an antibody specific to this antigen, at the American Association for Cancer Research meeting on Thursday, April 9, in Philadelphia.

Co-authors of the paper were Drs. Lloyd J. Old, Mark Vrana and Michael Lardis, all of the Sloan-Kettering Institute (New York City), with whom Dr. Edynak had been working for the past year.

Currently, Dr. Edynak is on a leave of absence from a surgical residency at the Hospital of the University of Pennsylvania while studying for a Ph.D. in pathology.

Though Dr. Edynak and his col-

leagues found that only 1% of cancer patients carried the antibody to gamma fetal globulin, this is additional evidence that man has the capability of responding through his body defenses to malignancy.

The research also indicates that tumor cells may have characteristics in common with cells in the embryonic states of very rapid growth, specifically the time of development when tissues are first being differentiated to develop into specific organs with their own individual functions.

It is possible that this common link might ultimately lead to earlier or more consistent diagnosis of some types of cancer. The possibility of increasing the sensitivity of detecting tumors by using radioactive labeling could conceivably lead to a blood test for the very early detection of most types of human tumors, Dr. Edynak concluded.

The research was supported by grants from the John A. Hartford Foundation, Inc., the National Cancer Institute and the New York Cancer Research Institute, Inc.

Text of Dr. Harnwell's Letter To GM Chairman James Roche

On behalf of The Trustees of the University of Pennsylvania I am sending you herewith our proxies for 33,300 shares of General Motors common stock owned by the University of Pennsylvania and registered in the name of its nominee, Franklin & Co. After careful deliberation by our Trustees, we have decided to vote these proxies in support of the recommendations of the Board of Directors with respect to the five proposals to come before the General Motors annual meeting.

We hope that on some appropriate occasion you will bring before the General Motors Board of Directors our appreciation of the fact that General Motors has taken cognizance of the urgent need for reducing environmental pollution from manufacturing plants and the emission of pollutants from the vehicles it manufactures. However, in the long-run interests of our urban society and its economy, we do not feel that any complacency is warranted on the basis of the Corporation's past accomplishments or

that the industry has assigned a sufficiently high priority or adequate financial resources to this problem which is urgent today and will be of paramount importance during the ensuing decade. If private enterprise does not accept a meaningful responsibility to abate the baleful effects of its processes and products on our common environment, the more onerous course of governmental control is inevitable.

As long-term stockholders in the Corporation, we recognize that such a program will affect the dividend income that the Trustees of the University can apply to the educational purposes of the institution. In the short run it may be costly; however, in the long run it seems reasonable to expect the resulting image of corporate leadership to elevate the public respect for General Motors and to enhance its sales in a healthy economy. This may well more than counterbalance the costs of additional pollution control measures that it is able to devise and adopt.

The Trustees of the University do not support the specific proposals of the "Project on Corporate Responsibility," as appropriate or effective means for promoting the purpose of reducing polluting effluents. Nevertheless, the Project's campaign has focused public attention upon one of the most serious problems faced by high-density populations. We feel that the General Motors Corporation would be very remiss indeed if it were to treat this evidence of public concern lightly. We see this rather as an opportunity to be enthusiastically seized for General Motors to distinguish itself through a program for reducing environmental degradation so carefully planned and demonstrably effective that the force of public opinion would compel its competitors and indeed other industries to follow.

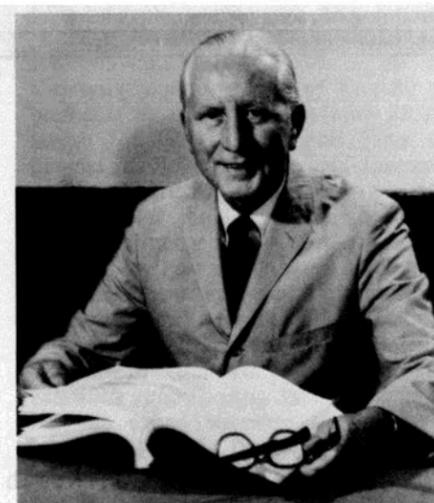
We are addressing a letter of similar tenor to the Chrysler Corporation, a copy of which is enclosed, which is the only other automotive manufacturing company in which the University is a significant investor.

Donald Angell Accepts Post With University Foundation

Donald K. Angell, Vice-President-Assistant to the President at the University of Pennsylvania retired from that position July 1 to join the University of Pennsylvania Foundation, Inc., as Senior Vice-President. The University of Pennsylvania Foundation, Inc., is a non-profit foundation created for the purpose of receiving gifts of an unusual nature which will ultimately benefit the University but require special attention or management.

A statutory officer for twenty-five years, Angell began his affiliation with the University administration in 1937 when he opened an office in New York as Executive Secretary of the University's New York Area Bicentennial Committee. He was made Assistant to the Director of the University's Bicentennial Celebration in 1940, and subsequently Director of Houston Hall, the Student Union, and Business Manager of the Houston Hall Store.

In 1946 he was elected Secretary of the Corporation and in 1951 was given added responsibility as Vice-President in



charge of the University Fund. Concurrently he served for several years as Acting Vice-President for Development and Public Relations and was named Vice-President-Assistant to the President in 1956.

As Secretary of the Corporation and

as Vice-President, Angell has enjoyed a unique close working relationship with four Presidents of the University—Mr. Gates, Dr. McClelland, Mr. Stassen and Dr. Harnwell.

In 1955 Angell received an award from the Association of American Universities for his work in connection with the meeting held that year with the Association of Universities of the British Commonwealth in Montreal, Washington and Philadelphia. The recipient of numerous Alumni awards, Angell is a director of the Convention and Tourist Bureau, the Philadelphia Civic Center, the West Philadelphia Corporation, Americans for the Competitive Enterprise System, Inc., the Gladwyne Fire Company, and the Bellevue-Stratford Company. He is a trustee of International House of Philadelphia and a member of the Executive Committee of the Association of Naval ROTC Colleges. Mr. Angell is a 1930 graduate of the University's Wharton School of Finance and Commerce. He and his wife reside at 530 Scott Road, Gladwyne, Pa.

Post-Lunar Quarantine To Continue

Even though earthbound "bugs" are still proving themselves very much a hazard to the nation's astronauts, the possibility that dangerous, extraterrestrial organisms may well exist is still a matter of concern to Dr. Allan H. Brown, professor of biology at the University.

That's why Dr. Brown, in his role as chairman of the Lunar Quarantine Review Committee of the National Academy of Sciences' Space Science Board recommended that full quarantine procedures be continued through the recent Apollo 13 moon flight originally scheduled to land in unexplored lunar highlands.

It was only last year that the concept really caught the public's fancy with the appearance of the science fiction novel, *The Andromeda Strain*, but Dr. Brown says that "way back in 1960 or 1961, scientists were beginning to wonder about 'What if?' What if there were life forms on the moon that could be pathogenic to man, or have other serious side effects?"

What, for instance, would happen if an organism was brought back to earth

that metabolized nitrogen as life here on earth does, but incorporated it metabolically in such a way that at death it was itself unmetabolizable by earthly organisms. As these alien organisms multiplied and died, more and more nitrogen would disappear from our own atmosphere until eventually it would be unable to support our own life forms.

The chance of something like this happening, or even the chance of disease-causing organisms being brought back to earth by our astronauts is extremely small, says Dr. Brown. "But the numbers game always comes out the same in the end. That is, that the possibilities are never zero, and thus any catastrophe would be enormous."

Consequently, at a 1964 inter-agency conference chaired by Dr. Brown at the National Academy of Sciences in Washington, scientists and engineers from all fields agreed that the risk of "backcontamination" was serious enough to recommend quarantine for space travellers by a 20-0 vote. The National Aeronautics and Space Administration accepted the

recommendation and asked the committee to oversee the design and setting up of the lunar receiving laboratory.

Later, with two successful Lunar Landing missions under its belt, NASA posed the question to the review committee: "Should we continue to quarantine the astronauts?"

By now, Dr. Brown's committee had quite a bit of experience to guide them plus the biological and medical reports from Apollo 11 and 12. NASA, of course, wanted to get rid of the quarantine for a number of reasons—the high costs, the inconvenience to the astronauts, and the degrading of scientific information caused by excessive handling of lunar samples.

"We voted for quarantine anyway," says Dr. Brown, "because there was a glut of information pro and con /and/ the evidence favoring termination of a lunar quarantine policy was insufficient. We couldn't predict what would be found on the Apollo 13 site on the basis of Apollo 11 and 12 data."

The Apollo 13 crew, he points out, was supposed to take core samples from eight feet below the lunar surface and go down as far as ten feet for temperature measurements.

"As far as the committee is concerned," says Dr. Brown, "this is essentially a new environment, and while the chance is still small and there is probably no life, no pathology, nothing . . . that chance is still not zero."

"Considering the vastness of the lunar surface and subsurface environments, the miniscule sampling of its surface rocks, and the few man-hours of exposure to whatever biological hazards may be present, I can hardly feel comfortable in concluding that the earlier Apollo missions proved that the moon is devoid of possibly dangerous life forms."

Even so, it is more than likely, according to Dr. Brown, that if there is no demonstrable difference between the information obtained from the three landing sites, NASA will decide for removal of quarantine on future trips to the moon.

It is also possible that this time NASA will go along with the review committee's recommendation to allocate only a few of Apollo 13's core samples for testing, setting the others aside until the end of quarantine so that chemists, geologists and other scientists around the world will get clean samples for their own experiments.

In the meanwhile, results of experiments with earlier lunar samples have already caused considerable consternation among NASA scientists. Bacteria representing a cross-section of terrestrial organisms were exposed to four types of lunar soils. They thrived in three of them, but the fourth, an Apollo 11 core sample, proved toxic and the organisms died.

By the same token, tests made on liverworts initially raised in a culture medium indicated that some of them grew better in lunar soil; bigger, in fact, than most of the control plants.

Right now, there are no answers to these puzzles, although there has been a great deal of speculation. Dr. Brown says he can't say what the answers are either, but that the key may lie in the nature of the moon rock itself. The glassy lunar soil contains many things ready to leap into solution because there is no water on the moon . . . things that may be toxic to bacteria, or other things which may stimulate the growth of liverworts.

"I can cite that the lunar soil is in an easily leachable state and rich in metals toxic to bio-systems," he says. "It also contains potassium-rich glasses which are nutrients and these could overcome a deficiency in the culture medium originally used to grow the liverworts."

Dr. Brown's own research is not directly concerned with the possibilities of extraterrestrial life. A plant physiologist, he is interested in how plants function and grow. He is collaborating with Dr. Orville A. Dahl, professor of botany, in a series of studies on how plants grow in centrifuges (in gravitational fields above normal gravity) and in orbiting satellites (in gravitational fields below normal gravity).

Their experiments on the effects of weightlessness on plants were originally scheduled as part of NASA's Biosatellite program, but were set back when NASA called a halt to further tests for budgetary reasons.

The team's basic project calls for time-lapse photography and morphological examination of a small plant of the mustard family that grows from seed to seed in only three weeks' time. The short growth period would allow them to observe the effects of weightlessness on growth kinetics over the entire life cycle. Dr. Dahl is handling the anatomical and cytological aspects of this work.

These, and other experiments previously scheduled for Biosatellite flights, are now being reconfigured for other manned or unmanned missions.

Dr. Brown would like to see more biologically significant observations performed in space on men and instrumented animals before astronauts venture beyond the moon.

"We need tests on primates because we can do things to them that we can't do to humans to see how they perform," he says, "and we should also make each flight a bit longer in increments."

Unless flight experience longer than two months duration is tested, he says, NASA will be ill-prepared to conduct a really long mission such as a journey to Mars.

"We know that man survives 14 days in space without any serious or permanent ill effects, but the population (on the space craft) is so small that you can't really tell . . . Now we'll probably do 56 days (Sky Lab I—the first orbiting scientific laboratory) and then off to Mars. This calls for a lot of confidence that nothing will happen, and I certainly don't have that kind of confidence."

Mars is also the most biologically dangerous planet in our solar system, says Dr. Brown, although the chances that it harbors an exotic organism that could cause us to be sick are very small.

"On the other hand, suppose Mars is sterile?" he adds. "A famous scientist once said that if he had his choice he would prefer this. We could examine the chemical milieu of a sterile Mars and compare it with our deductions about what kind of pre-biotic chemistry may have existed on the earth. As for me, I'd prefer to have two planets like Mars . . . one sterile and one not."

At least astronauts returning from Mars won't have to agonize over the prospects of quarantine when they get back. The return trip is so long that they would have long since passed through any incubation period.

Or as Dr. Brown puts it: "If they don't get sick, they don't get sick."

Guggenheim Fellowships . . .

(continued from page 2)

in Leningrad.

Dr. Shinya Inoue, professor of biology, plans to spend next year under his Guggenheim Fellowship determining the particular level at which he will conduct his research in biology in the future. Dr. Inoue will examine whether it would be more productive to continue his research on cells, or whether to move either to the area of the interactions between cells to form tissues or to the area of the group behavior of organisms such as insects or other invertebrates. In the area of group behavior he would be studying the actions of groups of cells or organisms as these relate to the physiological activity and interaction with the environment of these organisms.

Dr. Inoue is particularly concerned about the absence of adequate knowledge of intercellular mechanisms. Research in this area, he believes, could help expand the knowledge of the development and interaction of cell components. Such knowledge eventually could prove useful in finding the causes and possible treatments for cancer in humans.

Under the fellowship, he will visit the Weizmann Institute in Israel, the University of Madras in India and Nagoya University in Japan.

Dr. Nicholas K. Gonatas is both a professor of neurology and pathology, and a member of the Institute of Neurological Sciences. He has long been interested in the cellular basis for diseases of the central nervous system. Over the past ten years he has found an association between neuropathological diseases and cellular abnormalities in the mitochondria of cells, abnormal lysosomes and abnormal synaptosomes (the nerve ending, or synapse, is called a synaptosome when isolated from the rest of the nerve cell). These leads now are being followed by other investigators.

Dr. Gonatas, who will be working at the Institut de Recherches Scientifiques Sur Le Cancer at Villejuif, France, will explore in detail the possibility that synaptosomes may have antigenic properties, and if so, what characteristics they have. Certain neurologic diseases are

strongly suspected of being auto-immune in origin. That is, the cell or organ involved produces both antigens and antibodies to fight the antigens, causing the organ or cell to destroy itself. However, if no antigens can be found in synaptosomes, nerve endings could be excluded as possible sites for development of auto-immune disease.

Superblock . . .

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agreements for unfinished spaces will be housed temporarily in Sergeant and Walnut Halls, two dormitories the University had intended to phase out by fall.

Floor by floor as the Superblock high-rises are completed and furnished, students will then be moved into the new units by the University at no personal cost, Dean Robinson said. There will be a rent adjustment for those who must live in interim quarters for more than two weeks.

Judge Higginbotham To Teach Course in Graduate Sociology

U.S. Judge A. Leon Higginbotham will teach a course on "Racial Justice and the Sociology of Law" for graduate sociology students during the 1970-71 academic year.

Judge Higginbotham is a member of the U.S. District Court for the Eastern District of Pennsylvania. He is a term trustee of the University and was vice-chairman of the National Commission on the Causes and Prevention of Violence.

Dr. Marvin E. Wolfgang, chairman of the sociology department, announced the new course. He said the first semester will deal with the role the law has played in the denial of racial justice in America, and the second semester will cover basic cases which have come before the Supreme Court since 1944 related to the obtaining of racial justice.

Almanac is published during the academic year by the University for the information of its faculty and staff.

News items should be sent by the first of the month to:

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