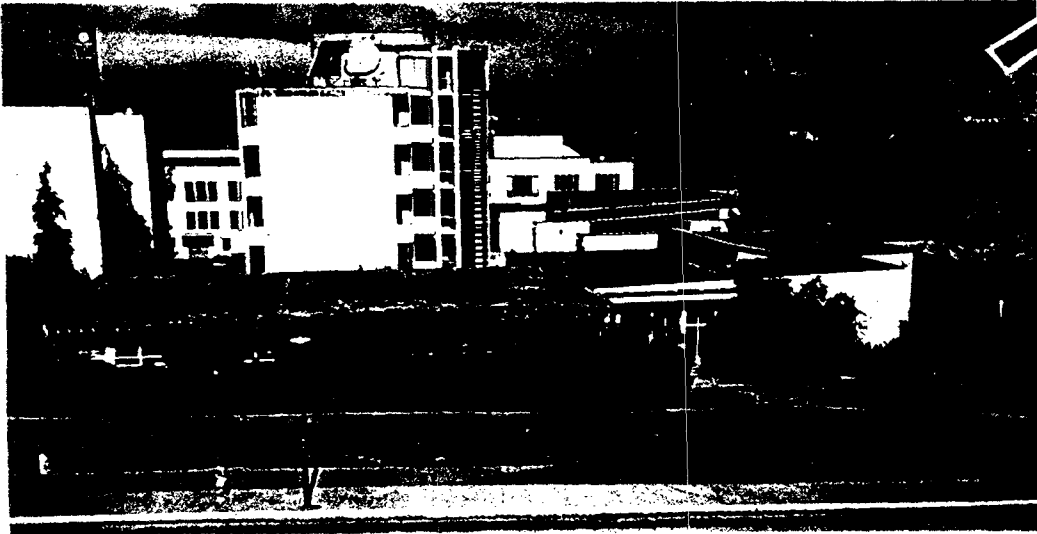


# 432

the

W E D N E S D A Y

VANCOUVER, UBC



Steve Kwong

## CPAX gets the Axe!

Slated for demolition on September 1, the Chemistry and Physics Annex (CPAX) is still standing across from the bookstore. Originally a home economics building in 1926, the building now no longer meets safety standards. CPAX use to house the Science Undergraduate Office, the Chemistry Student's Office, various Chemistry/Physics professor's offices and the Tutoring Center for Undergraduates.

The occupants were asked to vacate the building before August 20 and as of today, the Science Undergraduate Society is located in Scarfe 9. The Chemistry Student's Office is located across from Chem 150 (beneath the stairs) while professors previously housed in CPAX have found accommodation either in the Chemistry or Physics Building. The Tutoring Center's location has yet to be announced.

Scheduled for completion in 1990, Dean Miller said that the \$16.4 million Chemistry and Physics will serve three purposes:

"It will provide much needed research space for faculty, graduate and directed research by undergraduates."

"It will liberate space in the current chemistry facilities for improved teaching laboratories."

"There will be a new reading room (library of current periodicals) which will be available to students and faculty. It should provide a good meeting ground for Chemistry and Physics faculty and students."

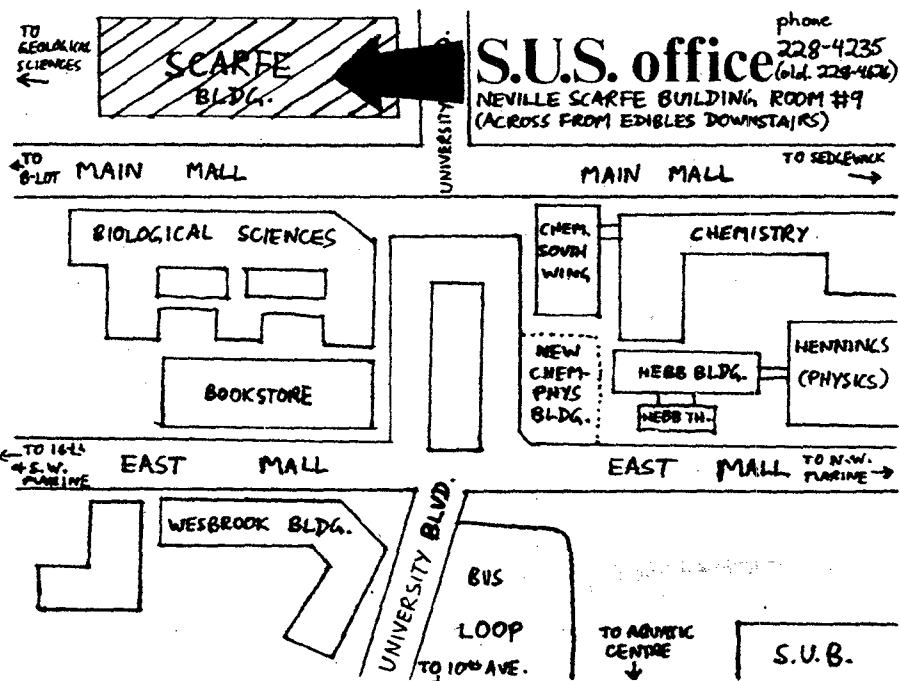
Added Dr. David Strangway, "This new facility, with its state-of-the-art research laboratories will enable UBC to become even more competitive for national and international research contracts."  
-The Vancouver Sun (Douglas Todd)

For more information, Dr. Weiler (Head of Chemistry) and Dr. Turrell (Head of Physics) should be contacted. The plans for the new Chemistry/Physics Building is posted in the Chemistry Office for those who are curious.

*Science Undergraduate Society*

**INSIDE**

Sept. 9/87  
Number 1



Steve Kwong

# SUZUKI



Science Communication  
— too little signal, too much noise

One of the puzzling paradoxes of society is that, in all of human history, today we have the highest level of literacy, the largest number of university graduates, the greatest exposure to books, television, and radio, and yet there remains widespread ignorance and superstition involving science, technology, and medicine.

What I mean is that there are excellent and popular magazines like *Scientific American*, *New Scientist*, and *Science '84* available, yet a far larger audience learns about science and medicine through newspapers like *The National Enquirer*. There have been many best-selling books by established scientists such as Stephen Jay Gould, Carl Sagan, Margaret Mead, and Lewis Thomas, yet many more people read about Uri Geller, UFO's, Chariots of the Gods, Plant Communication, the Bermuda Triangle, Spontaneous Combustion, Worlds in Collision, and so on. There are television programs like *Nova*, *Horizon*, and *The Nature of Things*, yet far larger audiences watch *That's Incredible*, *In Search of*, and *What Will They Think of Next*.

I began appearing on television and radio 21 years ago in the belief that, by informing people about science, by providing them with more information, I could help them to deal with the powerful forces of science and technology. Today, I am far less sure of this as I realize that we are awash in information. We have information coming out of our ears; we are hooked on information. The problem is that there is an enormous amount of "noise" in this information, by which I mean "junk" or "garbage."

In science, we know that most of what is published will be considered insignificant, irrelevant, or incorrect in five years. The problem for scientists is to decide what, in that huge pool of published data, is worth remembering or doing something about. Of course, we do have a number of clues to follow here: some journals are better than others; some authors are better; some research institutions are better; and, oh yes, some of the experiments performed are better. I can't imagine a more critical and skeptical (some say cynical) group than scientists — we want to see the data ourselves, we want to decide

what conclusions are valid, and we are very quick to dump all over a poorly conceived and executed experiment. That, to me, is the great strength of scientific activity — we demand evidence and we evaluate it. And that attitude is the most important gift we in science can provide to the general public.

As a teacher, I encounter a lot of students who tell me about a new "breakthrough" in cancer, life extension, alternate energy, and so on. And often, when I ask how they know, they'll reply that they saw it on TV or read it somewhere. What concerns me is the ease with which a report is accepted and repeated as a truth simply because it exists as a statement in the electronic or print media. Indeed, we often pass on, as if it were true, the latest diet, jogging trick, or vitamin therapy that someone else tells us about. I find that a lot of people take massive doses of vitamin C when a cold threatens, but few have ever read an article on the pros or cons of Linus Pauling's ideas. (Pauling considers vitamin C to be a wonder drug.) I find, in groups that I speak to, virtually everyone has heard and believes that we only use a part of our brains (anywhere from 20 to 80 per cent). The implication here is that, over a million years ago, our ancestors evolved this organ with vast empty spaces to be filled at a much later date. But the brain only makes up about 2 per cent of body weight, yet consumes 20 per cent of its energy, which is quite a burden to carry around for future generations. Yet, this is a widely accepted social "truth."

During discussions with friends, I have been shocked to be told that I'm being "too scientific" when I ask them "what are the numbers?" or "what's your evidence?" to back up a statement. It's as if the demand for quantitative evidence is not relevant in day-to-day conversation. And so people feel free to cite anecdotes as corroboration for sweeping generalizations. I've heard such things as:

"Marijuana is safe. I've smoked three joints a day for years and it hasn't affected my grades."

"If you believe scientists, to get cancer from saccharine we'd have to drink 10 000 bottles of Tab a day."

"Edgar Mitchell, the astronaut, says ESP is a fact."

It's hard to avoid extrapolating from a personal experience to a conclusion (I've been doing it myself in this column), yet that's the basis for many of our prejudices about racial groups, the sexes, or socio-economic groups. And it leads us, without any evaluation to try the latest fads: to get rid of cellulite, to slim, or stay young. It becomes far more critical, however, when we must decide on matters like nuclear energy, defense policy, or pollution control.

I have come to the unhappy conclusion that my efforts to convey more information through the electronic media may have simply exacerbated society's problems by adding to the morass of available information. I hope in the future that educators will distinguish between informing youngsters about the body of techniques and ideas in science, and the much more relevant lesson for daily life in our information society: namely, the critical scientific approach, the demand for primary data and quantification.

But that's not easy. In our daily lives, we only have our personal experiences on which to draw conclusions about the world around us. Valid generalizations require a larger body of experience and a critical assessment of its contents, and for anyone not familiar with science, that's not always easy.

I think the biggest challenge — and hope — rest with the way science will be taught in the grade schools in the future.

SCIENCE DIMENSION, Vol. 16, No. 2/84 With permission from Dr. David Suzuki.

# Dean of SCIENCE

For the past 2 years, Dr. Robert Miller has been the Dean of Science. He received his bachelor's degree in Physics (Trinity College: Connecticut), his masters in Bio-Physics (Penn State), and did his post-doctorate research with HG Khorana who was awarded the nobel prize for solving the genetic code. At the University of Pennsylvania, he worked on the chemical synthesis of a gene where he received his Ph.D.

As a professor of Microbiology specializing in molecular biology at UBC, his position as Dean of Science holds much responsibility.

"I am responsible for faculty appointments, promotions, research facilities, teaching facilities, academic programs of the faculty and the academic standards of the Faculty."

However, responsibilities also lie on the three Associate Deans. Dr. David Dolphin is the contact person for the Industrial Liaison Office. Dr. Liley is responsible for student affairs while Dr. McMillan handles faculty affairs. If students have any inquiries concerning academics or advice, the Associate Deans are there to help.

This year UBC has a biotechnology laboratory. Previously unavailable due to budget restraints, it came about through the Center of Excellence Fund. The labs will house new equipment and research labs for faculty, graduate and directed undergraduate research. There will be three areas of advance teaching labs for undergraduates: fermenting processing engineering, animal molecular genetics and plant molecular genetics.

"It is a priority (referring to the Biotech. Labs) in many of the top-flight universities in North America. We have a significant background of excellence in that area at UBC", said Dean Miller.

For more information, Dr. Michael Smith is the person to see as he is in charge of the Biotechnology Labs.

## DR. ROBERT MILLER Jr.

"We are moving as a society to a time when more and more people need to understand more and more Science regardless of what they do, whether they're working in a lab, office or running a company. They have to understand technical matters which demands a background in Science. We may be moving to a time where we stress a general approach to Science and less emphasis on what department will give us the best chance of finding a job."

"We don't only need people who are going to make significant discoveries in a narrow branch of Science which implies the traditional pyramid; a broad base getting more and more specialized and advanced degrees. We need people who have a good general operating knowledge of Science regardless of whether they're doing Science."

"Many countries are much further ahead in their education development than Canada is in thinking about this approach in education; moving away from specific technical training to a Science Education. We have to consider that evolution very seriously."

"Nobody said Science was easy. Science demands a commitment from all of us." -Dr. Robert Miller

Asked as to which department offers the best career opportunities at the moment, Dr. Miller stressed that there is no single department that has outstanding career opportunities compared to the others (only what topics are 'hot'). He said that every department graduates people who are highly sought by industry, government or universities.

In order to seek a career, he said that one must establish two things:

"What you really want to do and what you're good at and to try to come to a compromise between those two things and optimize it. There are always jobs for good people who are committed to their work."

He said that many take Science as an education to prepare them for a wide range of careers where they use varying degrees of their Science information.

The Science Undergraduate Newspaper wishes to thank Dr. Miller for taking time off his busy schedule to meet with the editor. We hope to keep in constant contact throughout the year in order to keep the Science Students informed.

## EDITORS

Steve Kwong

## Published by:

Vince Jiu  
Jean Guay

## Photos

The Science Undergraduate Society  
Scarfe 9, UBC Vancouver 228-4235

432  
WEDNESDAY

# FROM THE PREZ

How many of you could tell me how many people are on the Science Undergrad Society council? How many of the different council positions can you describe? What are the various duties of these council members?

My duties as President include; chairing the Science Undergrad Society council meetings; representing Science students to the AMS (at present I am also on the AMS hiring and budget committees); and basically act as overall co-ordinator of the society.

The Science council is split into four main areas; Academics, Administration, Recreation and Representation.

The Academics part is overseen by the 1st vice-president. The 1st vp's duties include; assisting the president; representing Science students to the AMS; working with the Science senator to ensure that we are properly represented to the faculty; co-ordinate registration week activities; co-ordinate any elections or referendums.

The rest of the academics section includes the Science senator (our representative to the UBC senate) and the AMS representative. The AMS rep's main function is to voice concerns of Science students to the AMS student council and keep Science students informed of what the AMS doing.

The Administration part of our organization headed by the president. The other members are the treasurer (responsible for the finances of the Science Undergrad Society), the secretary (keeps track of any of the societies records and correspondence), the publications co-ordinator (handbook, paper, tickets, ballots and any other publications) and the public relations officer.

The recreational section of the Science Undergrad Society is overseen by the 2nd vice-president. Participation in Intramural sports is encouraged and organized by the sports co-ordinator and social activities such as bzzr gardens and dances are looked after by our social co-ordinator.

Representation of the Science student body to council is carried out by two groups. One group is the elected or appointed reps of the various Science departmental clubs to the Science Undergrad Society council such as the Dawson club or Physsoc. The other group contains the year reps with there being three of each year, except first (which has two), giving eleven year reps in total.

All the members of each of the four areas have a voice and a vote on council, therefore council could have as few as twenty-two (with no departmental club representation) or as many as forty votes if there were clubs representing each department. In reality approximately five clubs send reps and many of departments do not have have clubs to represent them.

We will soon be electing the two first year reps. If you are in first year science and interested in on of these positions, come and see me (Todd Ablett) in our SUS Business Office Scarfe #9 (downstairs) and I'll do my best to answer your questions about what being a year rep requires in the way of effort and time. Please do this by Sept. 16 as the reps will be elected at the Sept. 17 council meeting.

I hope this article has helped to answer some of your questions about the Science Undergrad Society Council and how it is structured.

Todd Ablett  
SUS Pres. 87 /88

It's quite simple, when you register for an Intramurals event (eg. Arts 20 Relay, Handley Cup Soccer, etc.) simply put on the registration form that you are playing for Science, then drop by Scarfe #9 (SUS Business Office) with your receipt and a photocopy of the registration form. Fill out a rebate application (Yes, paperwork), and after the event come back and pick up your rebate. (Note: Co-rec events only qualify for a 1/3 rebate - but you're still saving money).

Now, with regards to saving time - both yours and mine - I will be posting my office hours in the next issue. Barring exams, midterms, and a personal visitation from God, I will do my utmost to keep them. Therefore don't chase me around as it isn't necessary. Simply drop off your request/message/threat when you can, then come back after my next scheduled office hours and you'll likely find a reimbursement/reply/booby-trapped counter-threat awaiting you.

"What are your office hours?" I hear you ask although I told you I'll be posting them shortly. I don't have any yet, so hold your horses and let me get organized!

Well, have a good year, and a likely unwanted piece of advice: Enjoy yourself at University, but not too much.



Michael Glenister



SCARFE, UBC - Rumours have been floating around about a secret (and secretive) subsidiary of the SUS supposedly called the "Black Hand." It is said that this organization perpetrates various events around campus which, if not for their rather innocent nature, might otherwise be termed terrorist actions.

When asked about the Black Hand, Darren McBratney, SUS 2nd vice-president, who is widely considered to be the don of the organization, replied: "You mean the prank group? The one that paints the cairn and all that stuff? Never heard of it." When pressed, he denied categorically that any such organization existed, had ever existed, or would ever exist, but that it would like to get some more funding.

Various other students whose association with the Black Hand is fairly well known vigorously demonstrated their lack of knowledge on the subject, saying that the Black Hand could definitely not be reached at the SUS office in Scarfe 9, and that Darren McBratney has nothing to do with the non-existent club. No messages should be left in his box, they emphasized.

SUS president Todd Ablett could not be reached for comment. His office proclaimed that he was most certainly not off painting the Civil and Mechanical Engineering building bright orange.

so YOU think  
you're

## SMART!

If you think you are a combination of Sherlock Holmes, Einstein and Superman, or just cunning and sneaky enough to solve any question or task on Earth

then why not try the

### SCIENCE'S CAVENGER HUNT

- How tall is the Clock Tower?
- How many stairs are there at the main entrance of Wesbrook?
- Bring back a Sept 11/87 issue of the Ubysey.

**7:00PM WED SEPT 16<sup>th</sup>**

in the Scarfe Student Lounge  
see G. 4

# Head of Oceanography

The department of Oceanography is one of the most obscure in the Faculty of Science when it comes to the undergraduate level. This is one reason why interviewing the head of this department was very interesting. Dr. P. H. LeBlond who replaced Dr. S. E. Calvert at the beginning of the summer as head will serve in the distinguished position for the next five years. Ironically, even though the department of oceanography was the first to grant us an interview for our undergraduates readers, it is the department that caters the least to undergraduate students. The lack of involvement at the undergraduate level comes from the Department's historical orientation and from the nature of Oceanography itself.

The department has only existed eight years and was previously administered by the Faculty of Graduate Studies as the Institute of Oceanography. UBC was the only university in Canada offering graduate studies in Oceanography. It maintained this exclusiveness for about 15 years losing it only in the mid sixties. Now four universities Canada offer Graduate Studies in this field. Most the Oceanography department's activities remains at the graduate and research level. The majority of the courses offered are graduate courses. About 1.5 million comes from the Natural Sciences and Engineering Research Council (NSERC) for research compared to \$750,000 given by the government for the courses.

## Dr. LeBlond

Asked why the department offered only combined honour degrees in Oceanography, Dr. LeBlond replied that a major in Oceanography would only give a superficial understanding of the oceans and that basic sciences like Physics and Chemistry were needed in order to fully understand the complex structure of the oceans. Also, most students in the undergraduate programs of Oceanography are expected to go on to graduate studies as the job entry is at the Masters and Ph.D level with most jobs occurring in government and universities. Even though the department receives one the the largest research funds on campus, it's lack of funds for undergraduate courses can be noticed in the lack of labs: only two undergraduate courses have labs. The situation is unfortunate especially considering the proximity of the university to the ocean.

Lack of money and room is to blame and even though Dr. LeBlond has pleaded for adding labs to many of the courses the bottom line remains economics. Dr. LeBlond added that courses in which "you stand in front of a classroom waving your hands don't cost any money and are easy to put in ... but a course which costs a lot of money and required space (labs) is another thing altogether."

Asked about the future the Oceanography department Dr. LeBlond stated that even though he was an optimist it was "difficult for any department in the University to think about expansion at this stage."



## PHOTOGRAPHERS

- must be able to use a camera to take shots with clarity
- the cost of film is reimbursed by the SUS
- the cost of printing photos is reimbursed by the SUS
- every picture used by THE 432 will have due credit given
- photographers will have a chance to learn how to use a PMT (photomechanical transfer) machine; it converts photographs into half-tones(dots)
- as photographers, you will be working along side the writers (ie. taking shots complementary to the story line)

Wanted at Scarfe 9, ask for Vince or Jean to get involved in THE 432. The place to be.

## REPORTERS

- must have an interest in writing and be able to type
- must be curious and inquisitive
- every article used by THE 432 will have due credit given
- writers will have access to the SUS computer/word processor and the AMS computer system
- story lines will be developed by you
- writers may have their own column if readership demands

The Science Scavenger Hunt for September 16, 1987 will be a test of your resourcefulness and powers of observation. Questions asked will take thought and/or action but none will be impossible. Any items asked for will not require their purchase or theft. We will meet in the Scarfe student lounge at 7:00 pm to register. The list will be handed out at 7:30 pm and your deadline for retrieval is 10:00 pm. Teams (max 4) or individuals may register for a fee of \$2 per person (\$4 for non-Science students). First prize is a Science windbreaker or 6 SUDS shirts or 3 cases of amber nectar. Second prize is a crinkle cotton Science shirt or 4 SUDS shirts or 2 cases of amber nectar. Third place wins a new design Science t-shirt or 2 SUDS shirts or 1 case of amber nectar. There will also be a special prize for the most unusual item found. All proceeds to Vancouver Children's Hospital.

Welcome to the exciting world of newspaper publishing. A world where letters, lines and pictures create a medium for the transfer of information.

The Science Undergraduate Society is looking for resourceful, motivated and dedicated individuals to work in their newspaper production department. We offer the best in equipment and the chance to learn a viable skill.

The newspaper this year is published every two weeks and has a circulation of 3000 for the first issue. The paper covers the Faculty of Science, the Science Undergraduate Society and the world of Science in general. We have called the paper 'THE Four-Thirty Two'. It is not called 'the Four-Three-Two' and definitely not 'the Four Hundred and Thirty Two'. It is distributed bi-weekly every Wednesday. Look for it!

## Interested in knowing more about Oceanography?

\* Many courses in Oceanography are open to Sciences students in many departments including Biology, Physics and Geology. The 308 Introduction to Oceanography course is open to all Science students in second year or higher. \*\* Weekly seminars on Oceanography are posted at all departments in Science and will now be announced in this newspaper. All Science students are welcome to attend but must consider that some lectures may be too specific. Generally, the title can reveal the complexity of the lecture.

## Upcoming Seminars:

Tuesday, September 15, 1987  
Dr. R. Gowan - Fish Farming and its Impact on the Environment.  
3:30 p.m. Biol. Sciences Room 1465

Tuesday, September 22, 1987  
A. Thomas - Pretty Colours and Ugly Data (may be specific)  
3:30 p.m. Biol. Sciences Room 1465

## LAYOUT/DESIGN/PASTING

- must be creative, imaginative and innovative
- able to work with glue-sticks, letraset and letraline
- the layout/design person will have access to the photocopying machine to make reductions/enlargements
- will have access to the SUS computer/word processor
- headlines/captions/subtitles will be developed by you
- layout/design person may have their own page(s) to develop
- due credit will be given

The Science Undergraduate Newspaper wishes to thank Dr. LeBlond for taking to time to meet with the editors and for his prompt response to our invitation, other sincere thanks go to the department head of Physics and Microbiology. We will be featuring the Physics department in our next issue in two weeks. We would also like to take this opportunity to reassert our invitation to the other nine departments in the faculty of Science to open up their doors to our Science undergraduate readers.

## ARTISTS

- must be able to draw, doodle and dabble
- will be aiding writers if necessary for illustrations
- artists may have their own space/section if readership demands
- illustrations used by the 432 will have due credit given
- materials required will be provided by the SUS

# the 432 WHY? CONTEST?

Can you guess as to why we've called the paper THE 432? Get those pens and pencils rolling because we have prizes galore to give away. Let's hear from you. Whether it be totally absurd or totally true, you have a shot at the grand prize and much, much more.

GRAND PRIZE: Dinner for two at 'Foggs and Suds'.

Bi-Weekly Prize: A Science Wind-Breaker for the best entry.

Entry Prize: Four 'suds' t-shirts will be awarded to entrants meeting the bi-weekly entry deadlines.

## CONTEST RULES

1. The contest is open to Science students only. SUS executives are not eligible to enter.
2. Each entry must be accompanied by a fully completed ORIGINAL entry form. Copies of the entry form will not be accepted.
3. All entries will be considered for the Bi-weekly Prize and the Entry Prize meeting the bi-weekly entry deadline.
4. All entries become the property of the SUS and will not be returned.
5. The contest closes OCTOBER 16, 1987.
6. The decision of the judges is final.

The first bi-weekly entry deadline is Friday, SEPTEMBER 18, 1987. Entries received on or before this date are eligible for the Bi-weekly prize and the Entry Prize. Drop off your entry in the SUS Contest Box, Scarfe Building, Room 9.

THE 432 contest

Name:

Phone:

Good Luck!

Calendar — SEPT. 16 Scavenger Hunt — 30 Air Band!

# DEFINITION OF A DARKBULB

James L. DeLucas

**T**he darkbulb is an electronic device that produces darkness. It is similar in appearance to the ordinary lightbulb. Whereas the lightbulb is considered an energy source, the darkbulb could be considered an energy sink.

The darkbulb looks like the ordinary lightbulb. It is much heavier, a typical 60 watt bulb weighing about two pounds. The darkbulb's outer shell is made of a special metallic material called heliotex. Heliotex was made specially for the bulb, and it is necessary for the bulb's operation. The bulb screws into an ordinary light socket and can be run on house current. The bulbs are normally coated black for easy identification. Darkbulbs come in power sizes similar to the lightbulb. Two and three-way bulbs and special purpose bulbs are also available.

## The Hay Field

Unlike the simple heating filament of the lightbulb, the inner contents of the darkbulb are complicated and electronic. The heart of this device is the crystallinoogin valve. The crystallinoogin valve was designed by Edison A. Thomas, an engineer at General Electric. (See "An Inexpensive Dissipator of Radiant Energy," *Electronics*, Vol. 42, No. 7, pp. 59-67, July 1970.) The valve is made up of a series of miniature electronic components. The sole purpose of the valve is the production of the Hay field. The Hay Reverse Electromagnetic Field, or Hay (REF), was theoretically proven to exist by R.E.F. Hay at MIT in late 1969. This invisible field is able to dissipate normal electromagnetic energy, such as light, by converting this energy into the reverse electromagnetic energy of the Hay field. This energy conversion process is the means by which the Hay field propagates through the air. In a vacuum the Hay field would propagate indefinitely. In air, however, the Hay field would lose energy to the surrounding medium and it would soon disappear. Thus, the crystallinoogin valve must continuously

produce the Hay field. Also, the Hay field will not propagate unless the surrounding medium contains electromagnetic energy, since the Hay field uses this energy to sustain itself.

The Hay field is analogous to a vacuum cleaner that sucks electromagnetic energy from the air. Electromagnetic energy such as light can be thought of as being absorbed by the darkbulb and then converted into the Hay field. The recycling of the trapped light energy not only solves the energy dissipation problem but also puts this energy to useful work.

The crystallinoogin valve sets up the Hay field on the inside surface of the heliotex shell. The properties of the heliotex material cause it to radiate the Hay field into the surrounding space, much like a lightbulb would radiate light energy from the heating filament. The heliotex shell thus acts as a radiating antenna for the Hay field. The type of radiation absorbed by the bulb is dependent on the impurities present in the heliotex shell. The impurities can be controlled during the making of the heliotex. Thus, special purpose bulbs that absorb only one kind of electromagnetic energy can be made. For instance, it is possible to create a darkbulb that absorbs only red light, or a bulb that absorbs only cosmic rays.

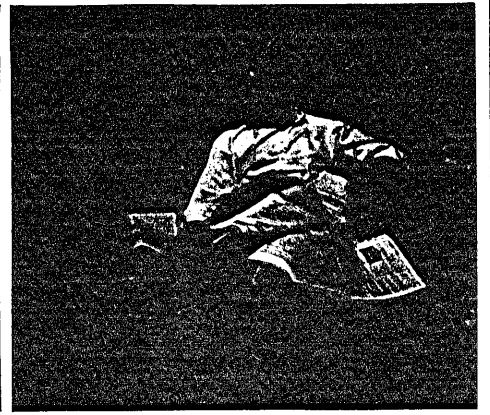
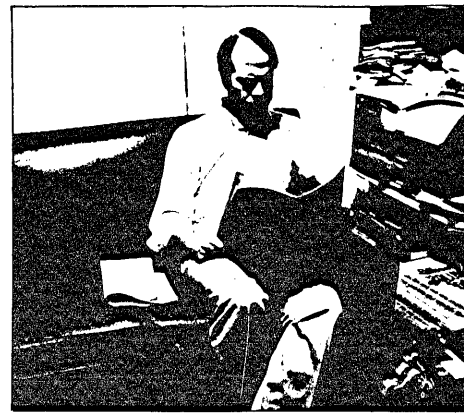
During operation, the surface of the bulb will actually become cool due to dissipation of heat from the heliotex material. The darkbulb "sucks" light energy from the air, but the bulb is not a perfect discriminator, and very small amounts of other forms of energy in the vicinity of the bulb will also be dissipated. The bulb will become cold because of a loss of heat energy to the field.

The ordinary darkbulb is one that will absorb light. The bulb will dissipate light, that is, produce darkness in as large an area and to as comparable a degree as a lightbulb of the same wattage will produce light.

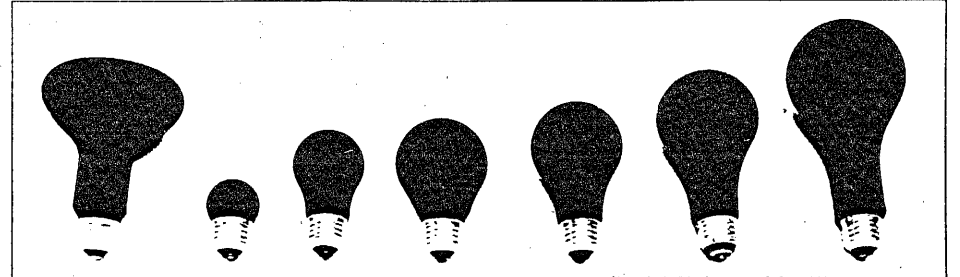
## The Dark Fantastic

The ordinary darkbulb has many uses. A flip of the switch makes it possible to sleep in the daytime with-

SOURCE: The Journal of IRREPRODUCIBLE RESULTS  
Edited by Dr. George H. Scherr /Workman Publishing, New York



Sunlight streaming into a room inhibits sleep, but flipping on the darkbulb envelops the subject in soothing darkness.



Darkbulbs come in a variety of sizes, shapes, and wattages.

out the use of eyepatches. Photographic enthusiasts no longer need to spend money "lightproofing" a darkroom. Just screw a darkbulb into a socket and any room becomes an instant darkroom. Eye doctors have found darkbulbs particularly useful for conducting eye examinations. There are applications of the bulb in the scientific fields, where many experiments require the absence of surrounding radiant energy. The darkbulb also seems to be popular at parties.

Special purpose darkbulbs are finding wider applications. The special purpose radio wave darkbulb will absorb radio waves from the surrounding area. One application of this bulb is in the scientific field where certain experiments require shielding from radio waves. The cosmic and X-ray darkbulbs absorb cosmic energy and X-rays from the air. These potentially hazardous forms of energy can now be snatched from the air before they reach the vulnerable human being.

As scientific technology advances, the special purpose infrared darkbulb will eventually be produced.

Such a bulb would absorb infrared (heat) energy. The invention of this type of darkbulb would have a profound effect on modern society. Refrigerators would no longer need a complex mechanical cooling system—just an infrared darkbulb inside. Sunbathers in the vicinity of an infrared darkbulb could get a tan without worrying about the harmful rays that cause sunburn. Air cooling could be accomplished with a darkbulb. Unfortunately, technology has not found a way to prevent the heliotex shell from becoming frozen solid during the bulb's operation. In the frozen condition, the heliotex shell fails to maintain the Hay field.

The darkbulb can be found in any store that carries lightbulbs. The cost of this modern advance in technology has been considerably reduced, although it is still much more expensive than the lightbulb. However, the darkbulb is not beyond the reach of the average-income American family. Indeed, they are becoming as common as the home radio.

# CLUBS

## chemistry

The CSC (Chemical Society of Canada) is open to any student with an interest in chemistry. During registration of the first week of classes, we are selling a year's rights to lockers in the Chemistry Building for a very reasonable price. If you are interested in joining the Chemical Society of Canada, drop by the office across from Chem 150 (bottom floor, South Wing of the Chemistry Building and ask for Julie. Be on the lookout for exciting events organized by the CSC.

## pre-med

Has the thought of becoming a doctor ever crossed your mind? Or are you just plain curious about medicine? Your questions will be answered when you join the Pre-Medical Society. You'll be exposed to the many aspects of medicine: Cancer medicine, Neurosurgery, Plastic Surgery and even Sports Medicine. Our members are kept informed with "up-to-date" information. (Eg. A 2 hour seminar devoted to AIDS concerning the latest advances in research and potential antidotes.) In addition to lectures (Eg. Dr. Boggie; regarding Medical School Entrances), we have field trips to Vancouver General, TRIUMF, UBC Hospital, GF Armstrong Rehab. Ctr. and other medical institutions which give you a first hand view of "medicine in action". Of course, PreMed is not just all that! We have gym/pizza nights so you can meet people with common interest and play a friendly game of volleyball, basketball, badminton and other sports. You can find us in IRC(Woodward) Room G-30 or call our Prez- Minnie Ho at 437-5842 for more info. So join us NOW!!! You have nothing to lose--only something to gain!

## physsoc

What price would you be willing to pay to get help in all your Math, Physics and Applied Sciences courses? How about free? At the Physics Society (Physoc), we can help you get those high marks you usually only dream about. Members have the use of their own study carrel plus the benefits of the library and lounge. Our members regularly compete in all the intramural events, so if you're interested in getting help in your courses or just having a good time, check us out. We're in Room 307 of the Hennings Building, located between Hebb and Main Library.

## computer science

The CS3 is a club where, despite popular belief, that we do nothing but hackS, the people are crazy, fun-loving and intelligent to boot; and yes, we do take daily showers and wash our hair. Another myth is that only CPSC students will benefit from such a club as ours: this is not so. We offer services such as: locker rentals, pop sales and the Micro Users Group. If you have any questions, or are interested in becoming a member (\$5.00), our office is located at Room 203A in the Comp. Sc. Building. Office hours are from 12:30-1:30 and any other time the club is open. Come out and join us for a fun-filled year.

## microbiology

math

astronomy

physics



# The Terry Fox Run

**SUNDAY  
SEPTEMBER 13th, 1987  
8:00 A.M.**

**VANCOUVER JEWISH  
COMMUNITY CENTRE**  
950 W. 41st Avenue — 266-9111  
Site #701

**10 KM (almost) and 3 KM  
Walk, Jog, Run, Wheel**

**ROUTE:** Start and finish at V.J.C.C., 41st & Oak

**3 KM** — East to Cambie, South on Cambie to 49th, West on 49th to Oak, North on Oak to 41st, finish in parking lot. ALL GENTLE GRADES.

**10 KM** — East to Cambie, South on Cambie to 59th, West on 59th to Angus, North on Angus to 57th, East on 57th to East Blvd., North on East Blvd. to 41st to Oak, finish in parking lot. UPHILL FROM EAST BLVD. TO GRANVILLE.

T-SHIRTS WILL BE SOLD BEFORE RUN DAY AT THE V.J.C.C.  
OR ON RUN DAY AS SUPPLY PERMITS.

**RUN DAY SCHEDULE**  
6:30 a.m. — late entrants  
7:45 a.m. — warm-up  
8:00 a.m. — start  
9:15 a.m. — prizes and refreshments



**KEEP TERRY'S DREAM ALIVE — Fill your pledge sheet and aid cancer research.**

|  |                          |
|--|--------------------------|
| Science UBC Jackets<br>(White leather sleeves, blue melton body) | reg. \$130<br>sale \$120 |
| Science UBC Windbreakers   | reg. \$35<br>sale \$30   |
| Woven Einstein/Faculty Shirts                                    | sale \$19.95             |
| Einstein/Faculty T-Shirts  | sale \$12.95             |
| 'SUDS' T-Shirts  | sale \$5                 |
| Science Sweatpants   | sale \$19.95             |

**sale!**

Sales Rep.: Dale Shewchuk  
Business Hours: Tues. 12:30-1:30  
Wed/Thurs/Fri. 12:30-2:30

Come on down to Scarf # 91

**Loose Leaf Paper**  
**SALE**  
**SAVE 40%**  
over Bookstore price  
**500 sheets only 3.49**  
**On sale NOW at Scarf # 9**  
**Another Science Fundraiser!**  
All proceeds go to the Terry Fox Run

# VOLUNTEER

The UBC Health Sciences Centre Hospital is seeking volunteers in various programs to enhance patient care provided by staff. Volunteer positions are available in the Extended Care Unit, the Acute Care Unit and the Psychiatric Unit.

- Extended Care Unit serves patients who need on-going nursing care and assistance with activities of daily living.
- Acute Care Unit consists of in-patient beds plus ambulatory and emergency services.
- Psychiatric Unit has inpatient wards, includes a Day Program and an Outpatient Clinic.

Staffed by professionals from a variety of disciplines, patients receive the best of care in the three units.

On Thursday, September 24th at 12:30, an overview of the various volunteer opportunities will be discussed in the Psychiatric Unit Lecture Theatre of the Hospital. Any students interested may register there.

Students who have already volunteered at the Hospital and wish to return to volunteering are encouraged to contact the Coordinators before September 24th.

As a volunteer, your contribution makes all the difference.



## VOLUNTEER OPPORTUNITIES

**ACUTE CARE UNIT:** 240 bed Unit with Medical and Surgical patients and a wide variety of outpatient clinics.

Admitting: Welcoming new patients, escorting them to their rooms.

Alzheimer's Clinic: Assisting the patient and accompanying family through the assessment day.

Emergency: Comforting and supporting patients, family members.

Library Cart: \*Taking library books and magazines throughout the Unit.

Gift Shop Cart: \*Selling gift shop articles throughout the Unit.  
(\*both the above include visiting with patients)

Long Stay Program: Assisting the Rehabilitation aide in programs with elderly patients.

Music Therapy: Assisting the Music Therapist with transportation of patients to her sessions.

**ORIENTATION SESSION:** Late September and on-the-job training. A variety of workshops throughout the year. Six month commitment required. Thank you luncheon in the spring.

**CONTACT:** Sherry Kendall at 228-7528.

**PSYCHIATRIC UNIT:** 60 bed treatment facility.

Gift Shop: Monday to Friday 11:00 a.m. - 3:00 p.m.

Library Cart: Goes to the wards weekly.

Recreation Program: Bowling, swimming, games, folk dancing  
Monday to Friday, 10:00 - 11:30 a.m.

Ward Visiting: Socialization with the patients, providing a healthy role model.

Requirements: No experience required. An ability to interact warmly with people.

**ORIENTATION:** Provided in the fall.

Two communication workshops provided.  
Thank you luncheon in the spring.

**CONTACT:** Sherry Kendall at 228-7528.

**EXTENDED CARE UNIT:** 300 bed long term care facility. Most residents use wheel-chairs. Average age is 84 years.

Volunteers give support in many areas, under the direction of Rehabilitation, Nursing, or other Hospital staff.

Exercise and Sports: Wheel-chair bowling, volleyball, gentle exercises.

Swimming: Helping wheel-chair residents at Stan Stronge Pool. Two groups a week.

One-to-One Visiting: With residents on the Patient Floors.

Social Groups: Bingo, card games, baking, social events - various times, mostly afternoons, Monday to Friday, some Saturday and evenings.

Entertainers: Musical instruments, singing, dancing. Oncall basis.

Library: Bring library cart to the Patient Floors. Receive and shelve donated material.

Hairdresser: Escort wheel-chair residents from Patient Floors to hairdressing area, and be a friendly visitor.

Music Therapy: Escort residents to groups, encourage their participation.

Garden and Plants: Assist in Patient Gardens, greenhouse, gardening groups, and with indoor plant care.

Pastoral: Escort residents to Chapel services Sunday afternoons.

Opportunities with Dietary, Speech Therapy, Social Work sometimes available.

**ORIENTATION:** September, January, and other sessions as required. Thank you luncheon in Spring.

**CONTACT:** Gerry Cavers at 228-7384

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|-------|----|----|----|----|----|----|
| sept. |    | 1  | 2  | 3  | 4  | 5  |
|       |    | 6  | 7  | 8  | 9  | 10 |
| 13    | 14 | 15 | 16 | 17 | 18 | 19 |
| 20    | 21 | 22 | 23 | 24 | 25 | 26 |
| 27    | 28 | 29 | 30 |    |    |    |

# SPORTS

There's lots happening this month in Science Intramural Sports. If you take a look at the calendar, you'll have a pretty good idea of the events coming up. On registration day, we had you fill out a survey (even though you grumbled and whined). So, please be expecting a phone call soon regarding the interests you circled on the survey.

Here's a brief description of some of the events coming up in the next few weeks.

Logan Cycle 200 - Saturday, Sept 19/87 (men's heats)  
 Sunday, Sept 20/87 (M & W finals)  
 Harry Logan Track

Teams consist of 5 cyclists, with 2 more as subs. One more is needed to count laps (ie 8 people per team). In the heats, 100 laps must be completed, each cyclist completing 20 laps. In the finals, 200 laps must be completed by the men (at least 30 laps per cyclist) while the women must complete 100 laps (20 laps per cyclist). One bicycle must be used. There is no cycle substitution during the event. Register Sept 8 - 18

Softball Tournament - Saturday, Sept 26/87  
 Osborne & McInnes Fields

Teams consist of 9 players and substitutes. Teams must have a minimum of 4 women playing at all times. It is a double elimination tournament, with slo-pitch rules. There will be a barbeque after the awards have been given out. The tournament promises to be lots of fun. Register Sept 8 - 18

Touch Football Tournament - Sunday, Sept 27/87  
 Osborne & McInnes Fields

Teams consist of 7 players. Men are separated into 2 divisions while women are in 1 division only. There are 2 17 min straight time halves plus 5 plays per half. Register Sept 8 - 18

Golf - Saturday, Oct 3/87  
 UBC Golf Club

Flites consist of 4 players, each flite plays 18 holes. Shirts are awarded to the top man and woman golfer of the day. There are also lots of other awards to be won so come down to Scarfe 9 to find out more. Register Sept 21 - Oct 2

### Soccer

Held in the first term only, the league is organized into 3 divisions with a super league added after the first session. Each game is played in 2 - 20 minute halves with a 5 minute rest. Playoffs occur in BC Place in November. For more details, come to the office and ask for Bernard or Stella. Register Sept 8 - 25

### Hockey

No definite details at the time of printing. We'll be phoning you soon to give you more information. Register Sept 8 - 25

So, that's a brief listing of the Intramural events coming in the next 2 weeks. Don't forget that we rebate 2/3 of your registration fee after the event if you're on a men's or women's team. Rebates for corec teams are 1/3. Any events that you participate in count toward your sports letter, so make sure you keep track of your events. To refresh your memory, the point award system is listed below. Point values are doubled for the Terry Fox Run - Sunday Sept 13. The run starts at 8:00 am at the Jewish Community Cntr. Registration starts at 6:30 am at the center or you can drop by the office before Friday noon. We're going to show up in lab coats for this fun run so join in the spirit and wear yours too (or some Science duds). To get your double points, make sure you see me Sunday morning at the run. If you don't want to run, you can walk, jog, or wheel around either a 3 km or 10 km course.

There are several vacant positions in the Science Undergrad Society Council at this moment. After reading the following job descriptions or expected duties, you should contact Todd Ablett (or leave a message) in Scarfe #9 (228-4235) if you are interested. Please do this as soon as possible as the positions will be filled by Sept. 17 at the Science Undergrad Society Council meeting, 1:30 in Room 206 SUB.

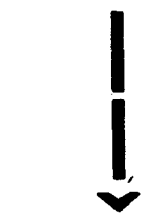
**2nd Vice-president:** This requires someone who can help coordinate both social and sports activities overall. He/she will work with the charity coordinator, concerts and security coordinator, social coordinator and sports coordinator. You must be able to attend all Science Undergrad Society meetings (1:30 - 2:20 every Thursday).

**Social Coordinator:** He/she is responsible for organizing all social functions of the Science Undergrad Society. He/she works with the beer garden manager, science week coordinator and the 2nd vice and will also have to attend all Science Undergrad Society meetings.

**First year reps:** There will be 2 of these positions elected from the first year Science student body. They will be responsible to sit on the academic committee, act as faculty representatives and in general be a direct communication link from Council to the first year students. They obviously will be expected to attend all Science Undergrad Society meetings.

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| SUS SPORTS  |             |
|---|-------------|
| small S   | 25 pts      |
| medium S  | 50 pts      |
| large S   | 100 pts     |
| Team sports   | 1 pt/game   |
| Spirit Risers (corec)   |             |
| Softball I & II, Wallyball, Broomball I & II, Curling, Cricket  | 2 pts/event |
| Runs  |             |
| under 5 km  | 1 pt        |
| 5 - 10 km   | 2 pts       |
| 10 - 15 km  | 3 pts       |
| above 15 km   | 4 pts       |
| Arts 20   | 4 pts       |
| Centipede Run   | 4 pts       |
| Cycling   |             |
| Logan Cycle (heats)   | 2 pts       |
| (finals)  | 2 pts       |
| all others  | 2 pts/event |
| Tournaments   |             |
| Touch football, golf, 3 on 3 basketball, sub 6 ft basketball, tuq-o-war   | 3 pts/event |
| Raquet Sports   | 3 pts/event |
| Triathlon   | 10 pts      |
| Day of the Long Boat, Grouse Mtn Ski, Storm the Wall, Downhill Derby  | 4 pts/event |
| no points for drop in events<br>all points are cumulative from year to year   |             |
| Interested?? SUS Sports will be calling you soon at the number you listed on your questionnaire. Your welcome to come down to Scarfe 9 to find out more. Just ask for Stella or Scott. The office telephone number is 228-4235. |             |



Submission  
 Deadline:  
 Friday  
 September 18  
 1987