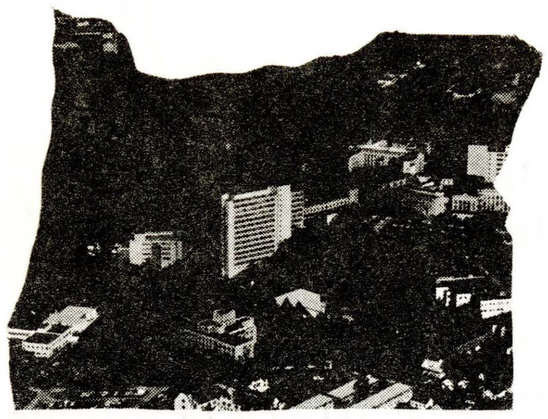

THE PULSE

Vol. 7, No. 4 SAMA Chapter, University of Oregon Medical School March 8, 1971

A transexual whose genitals are altered in surgery can change his name accordingly in court. But in just such a New York case, the judge stipulated that the new name did not constitute legal determination of "her" new sex for purposes of, say, obtaining lower life insurance rates, setting inheritance rights, or getting full social security benefits at 62.

The Hospital Physician
February, 1971

A majority of Roman Catholic Congressmen voted for the new law supporting family planning aid other than abortion. A Planned Parenthood vote shows 57 "Yes", 13 "No" and 24 abstained.

The Hospital Physician
February, 1971

UOMS SPORTS REPORT

Intramural basketball league action ended the week of February 14th with Medical Juniors (Mumford) and Medical Juniors (Storey) sharing the Tuesday League Championship with identical 4-1 records. Dental Juniors won the Wednesday League Championship with an unblemished 5-0 record.

Post-season tournament play is currently underway in the student activities gymnasium. Semifinal games are scheduled for Wednesday, March 3rd from 6:00 to 10:00. Bruce Ito's Medical Freshman team is picked by the experts to sweep the tournament. The finals are scheduled for 6:00 P.M. (Tuesday League) and 8:00 P.M. (Wednesday League) on Friday, March 5th. Admission is free.

The Medico-Dental team finished the season in a winning fashion after getting off to a shakey start. They won their last five games by downing Portland State Frosh twice, Northwest School of Law twice, and University of Portland once.

FROM SPONGES TO FAUCETS!

With its recent curriculum reform, the administration of this institution has finally made an attempt to bring us into the modern era. Now that Relevance has been officially sanctioned, the word "patient" makes a regular appearance in basic science lectures (though the patient a freshman knows best is entirely beyond the help of medicine); and the idea of student participation is cautiously encouraged. But still most first and second year students must be consoled with phrases such as, "wait until the clinical years", or more honestly, "it gets worse before it gets better."

To put it frankly, the new curriculum is a sham, and the fact that it is considered reformed is a commentary in itself. My idea of reform is not rearranging old courses into new ones and still keeping the same grade-pressured standardized learning. Reform doesn't mean using some mystical National Board Examination as justification for learning useless information. The idea of reform does not re-emphasize lectures and programmed laboratories.

What seems to occupy everyone's time is deciding what constitutes a basic medical education for the first two years. The fundamentalists usually argue that a freshman student just doesn't have the background for handling a patient's problem. Therefore, medical students must spend their first years "en masse" in lectures and laboratories, building a common foundation of knowledge. Such an attitude has some very fallacious assumptions.

First it assumes that the only basis of medicine is medical science and that the problems facing medicine in the future have primarily scientific solutions. But, I'm sure that if one were to make a list of the major sources of poor health in this country, over population, urban poverty, maldistribution of services and public ignorance would come before inborn errors of metabolism.

Secondly it assumes that medical students must all be educated similarly which is to deny the fact that we are graduate students (people) with very different interests. Sure, most of us have only a vague notion of what we would like to do, but we will never know until we get out of the lecture room, and the sooner the better.

Thirdly, is the assumption that a freshman medical student is incapable of dealing with real people and their problems. (Ironically the present approach to this situation is to isolate us for two years so that we can become "prepared" for clinical work). Again this notion denies the fact that we are people with a social conscience.

OK, I agree that Biochemistry, Anatomy, Physiology, etc. are vital and a basic understanding cannot be replaced by good will. But if we are given four years to learn the fundamentals of medical practice, need we spend so much time cramming in things which are often selectively discarded or relearned again and again. A freshman student is technically unprepared to treat illness; but he is also humanly unprepared to accept a deluge of information on a "take my word that it's good for you" basis. Therefore, the question is not even one of integrating the clinical aspects into the basic sciences but rather letting clinical experience necessitate, demand, inspire (or whatever) an understanding of medical

FROM SPONGES TO FAUCETS!
(Continued)

science. In short what I am saying is that making a comprehensive study of medical science mandatory for everyone is not only archaic and destructive to our spirits, but it also an unfruitful way of teaching.

Is this all a fabrication of my imagination. Just take a look at other medical schools as a source of comparison. The University of Washington, which is not that radical, has a curriculum plan which offers freshman afternoons free for electives, preceptorships and community service. Grades are pass, fail, high pass; tests (except finals) are optional; Anatomy is an elective depending upon your area of interest. Even more mouth-watering programs are offered at U. C., San Diego, Arizona, Connecticut, Mount Sanai and others. Students are given the chance to shape their own course of study and are provided with clinical experience from the first year.

Is it possible at UOMS? The first line you hear is "where do we get the money to do this?" But I wonder how strongly funds for education have been solicited as compared to that for research. Does it reflect the kind of priorities we are confronted with? What happened to imagination, and a willingness to experiment? Don't they come before any arguments about finances.

No matter how you slice it, the governing philosphy here is cautious; and I guess, understandably so. Medicine rests on tried and proven practices, which gives through an endless series of laboratory tests before being released on the market. The caution that is appropriate in handling a medical problem should not spill over into the problem of medical education. Change will have to come rapidly to this school if it expects to meet the needs of the future; the inertia of the administration must be challenged by persistent student action. Everything here is not fine now that we have a curriculum reform. The inadequacies of this school are obvious, and those with ideas for change should stand up and be heeded.

David Perlman
MS I

A NEW CURRICULUM
(The University of Washington)

The curriculum is divided into two major divisions, the basic curriculum, which must be completed by all students who are candidates for the M. D. degree and the pathway curriculum, which provides an opportunity for students to complete their degree requirements by taking courses in one of four prescribed pathways. Attainment of the M. D. degree is based upon credits earned and is not dependent upon a specific time requirement. Capable students who take a maximum load per quarter may complete their degree requirements in 10 to 11 academic quarters. Such students, by utilizing summer quarters may finish their requirements in three years. Other students may proceed at a slower pace and take four to five years to complete their requirements. The curriculum thus offers flexibility in educational experience and flexibility in individual programming.

Students are expected to proceed through the basic curriculum during their first six quarters in the School of Medicine. The academic demands of the basic curriculum are scaled so that most students will be able to take elective courses in addition

A NEW CURRICULUM
(Continued)

to the basic curriculum. Electives may be used to make up educational deficiencies, to broaden the students background, or to begin the fulfillment of pathway requirements.

Quarter 1 (Autumn)	Class Hours	Credits
HuBio 410 - Molecular and Cellular Biology	90	7.0
HuBio 411 - Human Embryogenesis and Tissue Structure	55	3.5
HuBio 413 - Social and Cultural Aspects of Health	20	1.5
HuBio 422 - Control Systems and Mechanisms of Homeostasis	60	4.0
	225	16.0
Quarter 2 (Winter)		
HuBio 412 - Biostatistics and Epidemiology	30	2.0
HuBio 420 - Cell and Tissue Response to Injury	60	4.0
HuBio 421 - Natural Hist. of Infect. Disease & Chemotherapy	45	3.5
HuBio 423 - Musculoskeletal System	50	3.5
	185	13.0
Quarter 3 (Spring)		
HuBio 430 - Skin System	20	1.5
HuBio 431 - Head, Neck + ENT	40	2.5
HuBio 432 - Nervous System	80	5.5
HuBio 433 - Psychological System	50	3.5
HuBio 434 - Endocrine System	30	2.0
	220	15.0

Plus optional electives up to a maximum load of 18 credits a quarter.

In comparison the UOMS has 1,117 prescribed class hours the first year. For example 408 class hours are spent in Anatomy.

Letters

To the Editor: On Saturday evening January 16 I left Albany and the Hospital Auxillary's Fund Raising Ball to attend the OMA social for the junior class. The seven or eight in attendance were pleasant and nice to talk to. The older generation had perhaps 10-15 present including the Dean.

I wonder why the poor attendance? Certainly we have tried. Perhaps there is little in common between the generations! Or perhaps we are in complete accord on all subjects and hence no need for dialogue! I doubt it.

Albany will have a summer or perhaps year-round project similar to last year's. Dr. Laurel Case has some of the details. If any one is interested please write.

D. E. Boye, M. D.
1040 West 7th
Albany, Oregon 97321

To the Editor: Today is for Hearts and Flowers.

Your rag is acquiring excellence and, frankly, some status - it is increasingly read before being flashed into the round file.

The January 25th 1971 issue with the Frank Lord piece smacked of journalism -

Be careful, you may have a newspaper on your hands.

Best wishes,

Robert Campbell

the Catharsis

NUCLEAR POWER IN OREGON

Until approximately a year and a half ago, I shared the hope and belief with a great many others that "clean safe nuclear power" would constitute an important resource for the solution of many of mankind's rapidly developing problems of the destruction of the environment. When I was invited to attend a meeting concerned with possible effects of thermal pollution (now euphemistically referred to as thermal "enrichment") from a proposed nuclear plant on the Oregon coast, I felt that I should become informed about systems of producing power from nuclear reactors. As a result of evenings and weekends spent in study, I soon realized I would have to change my opinion. I would like to share with you some of my concerns.

My greater concerns with nuclear power development are those related to biological problems. My basic assumption is that stated by the Federal Radiation Council that "a threshold of radiation dose does not exist, that every use of radiation involves the possibility of some biological risk either to the individual or his descendants" (Risks and Regulations, page 2).

The one statistical certainty of course is that accidents will occur. Dr. Walter Jordan who has done a great deal of study and calculation of risks in this industry has written "we and the public should be prepared to face the possibility of a nuclear accident, just as we live with the possibility of major earthquakes, which will exact a large toll in property and lives." Dr. Karl Morgan, perhaps the most highly respected of health physicists, stated in testimony to the Joint Committee on Atomic Energy "I am of the opinion, however, that at the present state of the art large nuclear power plants should not be built in very densely populated areas. I suggest that for the present these plants be built underground or offshore in underwater caisons at considerable distances from big cities..." There are many other individuals of considerable stature who have expressed the same sort of opinions. It should be said that the engineering of the construction of these power plants is magnificent. Nuclear power plants represent beautiful, even aweinspiring, examples of the art and science of the engineer and the physicist. They are a little frightening to the biologist. The Trojan plant after a year of operation will contain over a billion curies of radioactive material. In comparison, the Hiroshima bomb released a few hundred thousand curies of long-lived radioactive materials. Of course this material is not in an arrangement which can cause a nuclear explosion, but the complexity of the operation and the well known tendency of manufacturers to cut costs wherever possible do lead me to have second thoughts about the security of such a system. After all, one of the most carefully constructed devices that man has ever made, Apollo 13, failed.

NUCLEAR POWER IN OREGON

(Continued)

With respect to the effluents produced in normal operation of the plan, one must look at the total picture of projected developments in the region and the world-wide development of nuclear power. All figures must be multiplied by 20 for our region, and by 900 for the nation. It is estimated that this plant will produce very small amounts of 23 radioisotopes which will be disposed of by release into the Columbia. The largest amounts will be of tritium (4770) curies). Krypton and xenon will be released from the plant into the atmosphere to the extent of perhaps 30,000 curies per year. It has been calculated that the output of Krypton alone from the world's power plants will be enough to double the general world-wide background radiation level in less than 95 years. The dose rate to body tissues of the world-wide population from tritium as the result of ingestion of drinking water and of inhalation and skin absorption has been estimated to increase by three orders of magnitude by the year 2000. It seems likely on the basis of one study that approximately 10% of the earth's surface (our 10%) will receive half of the total tritium. Hence, the average concentrations here may be much higher than the world average. Since 1952 the world-wide inventory of strontium 90 has jumped from essentially 0 to 19 megacuries. (This isotope of course is not normally released from nuclear power plants, but does contribute to the total picture of radiation exposure in the world and is particularly significant because of its incorporation into bone in the neighborhood of bone marrow.) The point is that as nuclear power plants grow or increase in number there is certain to be an insidious increase in the world-wide distribution of radioactive substances even assuming there will be no further nuclear weapons testing. It is repeatedly pointed out that the Trojan plant, and presumably each of the others planned for the region, will produce minute amounts of radioactive substances, and that these amounts will be well below the maximum permissable levels established by federal agencies. The implication is that maximum permissable levels are safe levels, and this implication I cannot accept. Few plants continue at a level of normal operation. The notorious Dresden, Illinois plant which has provided controversial data on infant mortality, discharged in its peak year 736,000 curies of gaseous waste into the atmosphere. Levels of that order of magnitude were produced over a period of five or six years of operation. The Humboldt Bay plant just south of the Oregon border in California produced 896,000 curies of gaseous waste in 1967 and according to some reports is also producing large quantities of radioactive isotopes in the Bay. (It should be pointed out that these are boiling water reactors and presumably the pressurized water system characteristic of the Trojan plant could not release such vast amounts.)

The most dangerous aspect of the development of nuclear power from the point of view of the biological future is related to the accumulation of highly radioactive fission products as wastes from fuel. The design and control of fuel processing plants has lagged far behind every other aspect of the development of nuclear power systems. These plants release many isotopes in large quantities into the immediate environment and they are of course accumulating in living systems. The shipping of the fuel and waste products carries with it hazards, no matter what the structure of the containers in which they are shipped. I am sure that no medical facility in the state of Oregon is equipped to care for one or a number of individuals who might suffer severe radiation injury in an accident, inspite of the fact that presumably a general disaster plan is in existence for the state. The long term storage of radioactive wastes is a very great problem indeed. Billions of curies of this material with half-lives ranging from a few minutes to millions of years must be cared for

NUCLEAR POWER IN OREGON

(Continued)

by all future generations of mankind. If the fission process continues to be the major source of electrical power for mankind, the burden imposed by the care of wastes will be very great indeed. No matter what the structure of government or society, its first duty will be to care for nuclear wastes. The first generation that fails to do this and allows these vast quantities of material to intersect with the biosphere will of course destroy much if not all of that biosphere. At the moment, investments in the nuclear waste industry would seem to be a sure thing; it is one econo mic venture that absolutely must not be allowed to fail!

Within the next few weeks the people of Oregon, through their legislature, must face up to making some decisions about the future of this state in relation to nuclear power. There are obviously a great many factors to be considered. Two bills before the present legislature provide for five year waiting periods in construction of nuclear power plants. This would seem very desirable indeed. The people of Oregon have already had considerably higher dietary levels of a variety of isotopes than probably any other state. This of course was from vegetables irrigated from Columbia River water and from beef grazed on pasture similarly irrigated. This occurred during the years when the Hanford operation was in full swing when, for instance beef from Columbia irrigated pastures ranged in some instances 500 times the level of radioactive zinc 65 of beef raised in other areas. All of the children raised during this same period when weapons testing was also at its peak possess higher levels of strontium 90 in their bones than probably has every occurred before in man's history. It is quite possible that providing a five year period of delay is established, and careful public health studies are done on the distribution and change in rate of leukemia and cancer and perhaps other less obviously related disorders, we may be able with our "experimental" situation here to answer some of the questions concerning the relationship between long-term low level radiation in humans and the instance of these health problems. I would propose that Oregon be kept as "clean" as possible of any additional local sources of radioactivity in order to provide some answers to basic questions. There are more extensive and adequate data concerning existing background radiation in water, air, food and population in Oregon than perhaps any other area. It would be very helpful in the long run to see what these figures mean for public health statistics.

There are many divergent opinions in this matter of nuclear power and our need for it (are we answering needs or creating needs?), and I would sincerely hope that the people of Oregon would express their concern to their legislators and request a slowing down of this tremendous pressure to get on the nuclear bandwagon. If in five or ten years we see a dramatic increase in the incidence of leukemia and other cancers and perhaps also in other diseases which are not so obviously radiation-induced, we may then have reached a point of no return, an irreversible situation with respect to the radioactivity in our environment.

R. L. Bacon, Ph.D.
Professor of Anatomy

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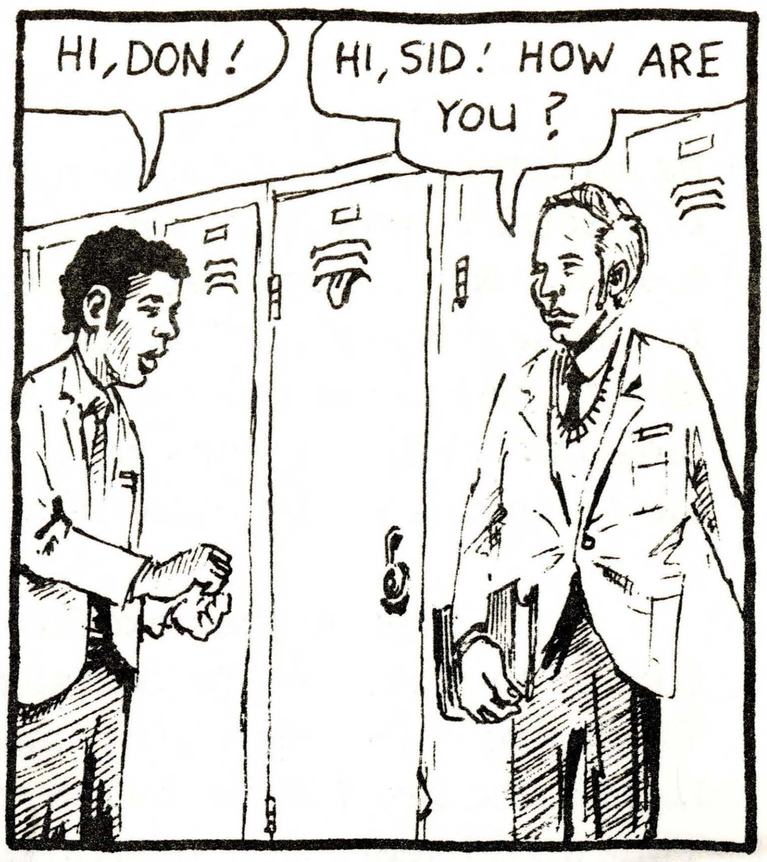
Coordinating Editor: Cody Wasner
Associate Editors: Bud Nicola,
Cline Hickok, Larry Zagata,
Linda Frison, Dave Pearlman,
Lee Davis Hall, Selwyn Halibut,
Cheryl Neil

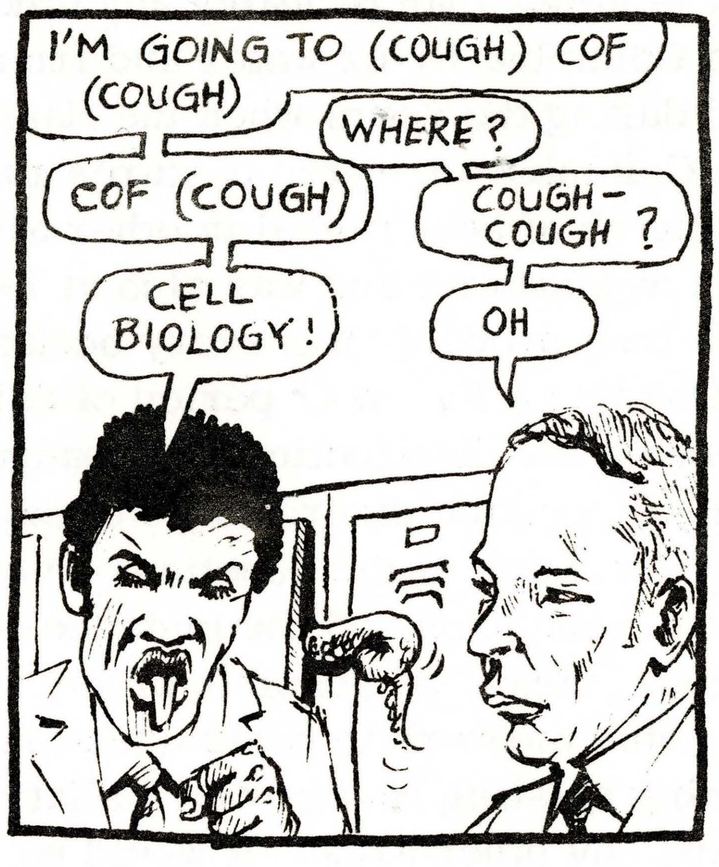
med student (mŭd stew-dent') n. 1. Person with white jacket and green name tag. 2. dedicated student, often found studying in the cafeteria. 3. the hard core of future physicians.

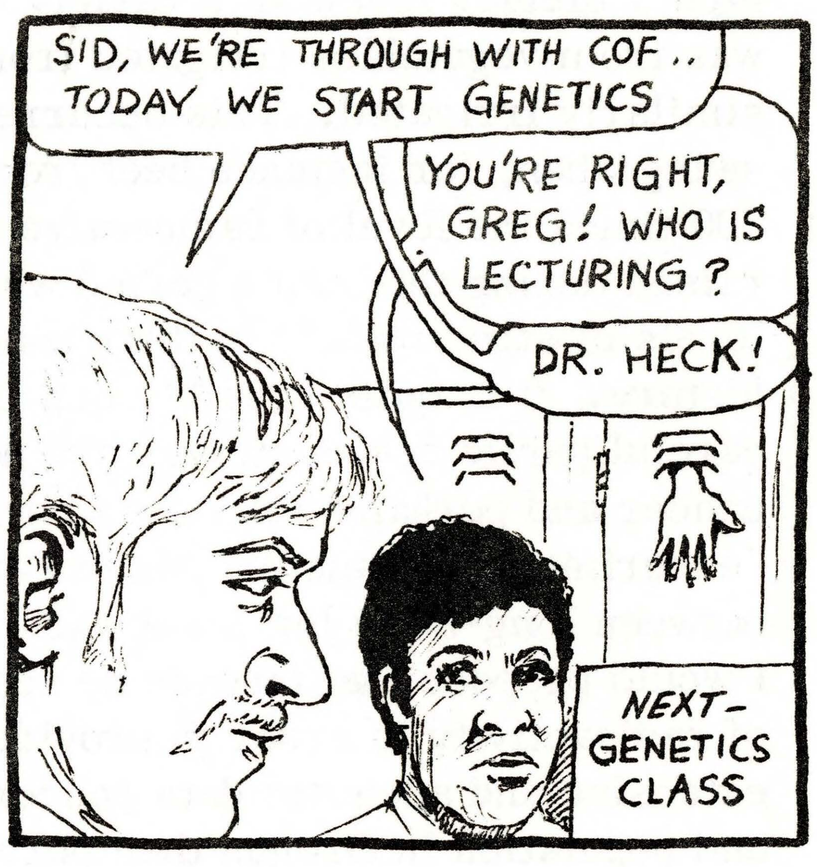
this is their story...

THE HARD CORE

by Selwyn Halibut MD, PhD, BVD







THE PULSE
University of Oregon Medical School
3181 S.W. Sam Jackson Park Road
Portland, Oregon 97201

Ken Niehans
Public Affairs