

Orthosis seminar features scoliosis experts

Participants from as far away as Hawaii are expected for an advanced seminar in "Spinal Orthosis," which is being conducted today and tomorrow by the American Academy of Orthotists and Prosthetists (AAOP) in conjunction with Duke's Department of Prosthetics and Orthotics.

The program, which is being held at the Holiday Inn West, began at 8:30 this morning with words of welcome given by Dr. J. Leonard Goldner, professor and head of the Division of Orthopaedic Surgery, and by Siegfried W. Paul, CPO, president of AAOP.

Bert R. Titus, CPO, associate professor and director of prosthetics and orthotics, outlined the objectives of the continuing

education symposium.

"Speakers will be presenting the latest developments in the treatment and care of patients with spinal fractures and curvature of the spine," Titus said earlier this week.

"Some of the largest scoliosis clinics in the southeast will be represented," he said.

Others from Duke serving on the program are Dr. Frank H. Bassett, professor of orthopaedics; Dr. Donald S. Bright, assistant professor of orthopaedics; Dr. Frank W. Clippinger, professor of orthopaedics; Dr. Wesley A. Cook, Jr., associate professor of neurosurgery; Dr. Ralph W. Coonrad, associate clinical professor of

orthopaedics; Patricia Friderichs, nurse clinician; William E. Harris, orthotist; Morrene L. Kallihan, nurse clinician; and Percy H. Ray, Orthotist.

Visiting faculty members for the symposium include Clarence A. Borrows, C.O., Charlotte; Dr. Lawrence W. Brown, Shriner Crippled Children's Hospital, Greenville, S.C.; Carlton Fillauer, CPO, Chattanooga, Tenn.; Karl Fillauer, CPO, Knoxville, Tenn.; W. Dewey Friddle, CPO, Shriner Crippled Children's Hospital, Greenville, S.C.; John Glancy, orthotic service director, Indiana University Hospital, Indianapolis; Dr. Charles F. Heinig, Charlotte; Dr. Frank E. Pollock, Bowman Gray School of Medicine, Winston-Salem; and Dr. Sidney Wallace, chairman of orthopedic surgery, University of Tennessee.



Microwaves aid X-rays in eradicating tumors

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Duke radiotherapists gave the woman a dose less than half as large as usual.

"We applied microwaves afterward and the tumor dried up and fell off," Noell said.

Using the two treatments together is "like adding one and one and getting three."

The woman's cancer had spread throughout her body and she couldn't be saved, despite the successful treatment of her chest tumor.

Arm saved

Team members feel more optimistic about a 14-year-old girl who got the combined treatment.

"She had a type of recurrent tumor on

her palm that has not been known to respond to radiotherapy," Noell said. "It has spread to the tissue near the elbow."

The treatment recommended first was amputation of the affected arm and shoulder. The girl refused.

"When we used radiotherapy followed by microwaves, the tumors disappeared," Noell said. "After seven months, she still looks good."

Transmit long distance calls

Joines said microwaves come between radio waves and infrared rays in the electromagnetic spectrum. They are the waves beamed out by radar antennas, and

also are used to transmit long-distance telephone calls.

When aimed at a solid body, microwaves cause heat. Luckily, cancer cells in a microwave beam get hotter than normal cells in the beam, boosting the effect of X-ray therapy, Joines said.

X-ray therapy injures cancer cells in part by breaking their twisting strands of DNA, the body's master blueprint. The broken pieces will try to rejoin. But heat may stop them from coming together again, killing the cell, the researchers said.

Vulnerability to heat

What's more, cancer cells seem to be most vulnerable to heat at the very point in their life cycle when they're most resistant to radiation. So cells that survive the X-rays might then fall prey to the heat, the Duke scientists said.

In the Duke treatments, microwaves were beamed from a rectangular antenna held against the skin. Radiotherapists used one of two antennas — one made from military surplus, the other made by the Burdick Corporation of Milton, Wis.

Brookhaven researcher to speak

Dr. Sanford Lacks of Brookhaven National Laboratory, who has identified two novel restriction endonucleases in pneumococcus, will discuss this discovery Tuesday.

The seminar, sponsored by the University Program in Genetics, will be in Room 147, Nanaline H. Duke Building, at 12:30 p.m.

The two enzymes, DpnI and DpnII, which are found in different strains, recognize a common tetranucleotide sequence in DNA.

They are distinguished by the fact that DpnI only cleaves DNA in which this

sequence is methylated, while DpnII only cleaves unmethylated DNA.

DpnI is the first example of an endonuclease specific for methylated DNA.

Seaber receives highest honor of eye association

Members of the American Association of Certified Orthoptists have conferred their organization's highest honor on an eye specialist from Duke and elected her to lead their group next year.

Judy H. Seaber, assistant clinical

professor of ophthalmology, received the Lancaster Award for Outstanding Orthoptics at the association's annual meeting in Dallas.

She will serve as president-elect of the 500-member society for the next 12

months and then assume the presidency at the annual meeting in October, 1978.

Orthoptics is the evaluation and non-surgical treatment of individuals with strabismus, a condition in which defective eye muscle action causes the eyes to be misaligned. Crossed eyes are an example of strabismus.

Seaber, who joined the Department of Ophthalmology 10 years ago, has written 17 papers on her specialty and contributed to two textbooks. She has served as editor of the American Orthoptic Journal for the past five years and a member of the group's governing council for the past three.

A graduate of Emory University, Seaber is also an accomplished equestrienne who was selected to participate in the Southern Regional Olympic Trials in Alabama last summer.



HONORED AND ELECTED — Judy Seaber, assistant clinical professor of ophthalmology, checks six-year-old Jennifer Mowry for amblyopia or "lazy eye." In October, Seaber received the American Association of Certified Orthoptists' highest honor and was voted president-elect of the 500-member professional organization. (Photo by Ned Hinshaw)

BICP class on tour

A class from Western Harnett High School, Lillington, is touring the medical center today. It is the third of four classes participating in the Biomedical-Interdisciplinary Curriculum Project to be our guests this fall.