



Pulse

A good match for the Class of '99

Of the 1149 medical school students who entered the 1999 Canadian Resident Matching Service (CaRMS) match, 56.7% were matched to their first program choice, slightly ahead of the 1998 total of 55.8%.

McMaster students enjoyed the greatest success, with 63.7% of the Class of '99 matching to their first-ranked program (discipline and location). They were followed by students from the University of Toronto (63.6%) and Memorial University (60%). There were more out-of-town matches than in previous years, with only 42% of students matching to their home school. As in past years, graduates applied to an average of about 13 programs in 2 disciplines.

Oversubscribed specialties — those in which the number of first choices exceeded the quota — were dermatology, diagnostic radiology, emergency medicine, ophthalmology, orthopedic surgery, otolaryngology, pediatrics, plastic surgery, thoracic surgery and urology. Fewer students registered in the couples match in 1999 (25) than in 1998 (32), and all couples but one matched in the first iteration.

The Department of National Defence sponsored only 8 supernumerary positions in the match in 1999, compared with 22 in 1996.

The 1999 CaRMS match

Medical school	Applicants	First choice	%
Memorial	55	33	60.0
Dalhousie	78	44	56.4
Laval, Montreal, Sherbrooke	17	8	47.1
McGill	78	45	57.7
Ottawa	80	40	50.0
Queen's	71	33	46.5
Toronto	171	107	62.6
McMaster	91	58	63.7
Western	97	57	58.8
Manitoba	67	40	59.7
Saskatchewan	50	25	50.0
Alberta	106	55	51.9
Calgary	69	36	52.2
British Columbia	119	71	59.7
Total	1149	652	56.7

This column was written by Lynda Buske, Chief, Physician Resources Information Planning, CMA. Readers may send potential research topics to Patrick Sullivan (sullip@cma.ca; 613 731-8610 or 800 663-7336, x2126; fax 613 565-2382).

MDs resign from BC palliative care centre for kids

A rash of resignations of physicians and nurses at Vancouver's Canuck Place last fall has drastically reduced the end-of-life care program at North America's only palliative care centre for children. Twenty-four of the original 35 clinical staff, including all 8 doctors, resigned over longstanding differences with the centre's volunteer board.

The doctors joined the 8-bed private facility 2 years ago to launch its palliative care program. A 24-hour respite program and bereavement support program were also provided. Now the centre has been reduced to providing respite care for a maximum of 6 children at a time. Jane Darville, executive director of Canuck Place, says they are planning

“a gradual return to end-of-life care by the end of this summer.”

What began as a very good idea ended with health professionals questioning the board's actions and the lack of accountability. Dr. Fraser Black, one of the physicians who resigned from the facility, says most of the board's members have business and donor-group backgrounds, with few having expertise in palliative care. He favours the type of representation recommended by the Canadian Palliative Care Association, where the board includes caregivers, patients and families.

“This board did a wonderful job of building a house, but it needed a different skill set for building a home,” says Black, who once spent

about half his practice time at Canuck Place, which is housed in a mansion bequeathed to the City of Vancouver.

Representation wasn't the only problem. Under the centre's structure, the private facility is not accountable to any government agency. The doctors complained of a lack of consultation by the board and a lack of understanding of the physicians' palliative care philosophy.

A report by an independent panel confirmed many of the doctors' concerns. The report said that board members never fully understood their roles and that differing views of hospice care were at the heart of the

(See page 1282)



Research Update

The chlamydial cause of heart disease

Chlamydia infections cause the immune system to attack the heart, leading to inflammation in the heart and cardiovascular changes, experiments conducted at the University of Toronto indicate (*Science* 1999;283:1335-9).

"This is the first research to show that this is a causal relation," says principal author Dr. Josef Penninger. Previous research has found an epidemiological link between *Chlamydia pneumoniae* infection and heart disease. As well, a study by Toronto researcher Bill Fong that was reported in this column has shown that injecting rabbits with the bacteria leads to atherosclerosis.

What Penninger and his colleagues have discovered is the actual mechanism by which infection causes heart damage. The key is a peptide in a protein found only in the heart muscle. This protein has recently been purified, and injecting it into mice has been found to cause swift and dramatic damage to the heart. Further research isolated the peptide responsible from this protein. Penninger's team hypothesized that a pathogen was causing the body's immune system to attack this peptide through a process called "molecular mimicry," in which the body mistakes a peptide in its own tissues for an invading pathogen. Originally, they were studying coxsackieviruses, which are the most common cause of my-

ocarditis in children. However, when they conducted a computerized search for the peptide in known viruses and bacteria, they found 1 match: the 3 species of *Chlamydia* bacteria.

"When there is a *Chlamydia* infection, T cells start attacking *Chlamydia*. The cells 'see' the pieces on the outside of the *Chlamydia* and attack them. These cells are circulating in the body. They see something in the heart that they mistake for *Chlamydia* — the *Chlamydia* protein looks very similar to the protein present in our heart."

Research into the link between *Chlamydia* and heart disease thus far has focused on one species, *Chlamydia pneumoniae*, a respiratory infection to which almost all people are exposed before reaching adulthood. However, this study shows that *Chlamydia trachomatis*, the most prevalent sexually transmitted disease, as well as *Chlamydia psittaci*, another respiratory pathogen, may also be implicated. Penninger points out that most of the previous epidemiological research correlating antibodies to *Chlamydia* with heart disease could not distinguish among the 3 species of *Chlamydia*.

It is unclear what proportion of heart disease is linked to *Chlamydia* infection. American researchers have said that because heart disease is such a common killer, even a 2% reduction

in the numbers of cases would be a significant achievement. Penninger also cites the statistic that 20% to 50% of people with heart disease have none of the traditional risk factors. This could be an indication of the proportion affected by *Chlamydia* infection.

Penninger believes that clinical ramifications of this research are not far off. "This research could lead to a vaccine or screening for people at high risk." — C.J. Brown

Research news . . .

No evidence that fat increases risk of breast cancer

A huge cohort study that followed more than 88 000 women for 14 years has found no link between eating fat and the risk of breast cancer (*JAMA* 1999;281:914-20). The data were taken from the Nurses' Health Study begun in 1976. Participants filled out a questionnaire on their eating habits every few years. Analysis of overall fat intake, and intake of different types of fat (animal, vegetable, saturated, polyunsaturated, trans-unsaturated), showed no difference in risk between those who ate a high proportion of fat and those who ate little. These results fly in the face of current thinking that a high-fat diet is a risk factor for breast cancer.

MDs resign

(Continued from page 1281)

dispute. The report concluded that a lack of leadership at the board level meant that these differences with the professional staff were never resolved.

The rifts first appeared in November 1997 and were aggravated in June

1998 when the board abruptly fired Annemarie Allan, the program care coordinator. Her firing prompted a nonconfidence vote by the medical staff at the June board meeting, and resulted in the doctors' resignations. "The board made a conscious decision to interfere with the fulfilment of the program and severely disrupted the team process," the doctors stated

in their letter of resignation. "What I have learned is that if a physician goes into a situation like this," says Black, "the board must be accountable."

A new executive director is currently hiring staff, and 3 on-call physicians have been hired. The board has now divided itself into 2 groups: one to raise funds and the other to manage the hospice. — © Heather Kent