

## PhD student in the Monoamine group in the 1960ies

Bertil Hamberger, professor emeritus

I was born at Karolinska Hospital 1942 and lived my first 8 years in an apartment in the Karolinska Hospital area. After school examination 1960 I started to study medicine and also came to the department of Histology in 1961 and got an unpaid appointment as e.o. amanuens mainly participating in education of the medical students.

### Research

It was a most stimulating environment with Professor Nils-Åke Hillarp as supervisor and mentor. A large group of young enthusiastic researchers were working and spending most of our waking hours together. I immediately got involved in the work of visualization of the peripheral sympathetic nervous system using the new, exciting method of fluorescence histochemistry together with Karl-Axel Norberg who defended his thesis in 1965

Parallel to this work I began to study the uptake mechanisms in the central and peripheral adrenergic nerves. It was quite different to be a research student at that time. I had great help from Annika Degervall (whom I later married) Fig 1 and the guest researcher from Los Angeles David Masuoka, Fig 2. We worked a lot with rats and David taught me and the monoamine group how to make brains slices.

#### Factbox 1

- Minimal bureaucracy
- No PhD registration
- No mandatory courses but
- 5 months full time basic science research course in biochemistry
- No ethical applications
- My first grant was just payed to my private account

*Figure 1(right). Annika Degervall(later to become my wife) prepared rats for treatment. Fig2 (below).David Masuoka and Bertil Hamberger in the lab 1965.*



There was also other things that we take for granted today, no Internet, no computer, no copier and no electric typewriter. There were also other practicalities when producing manuscript.

A contribution of some value for the group was the standardization of the histochemical procedure. It turned out that the humidity of the paraformaldehyde used to induce the fluorescent product was crucial for the result. When the humidity of the paraformaldehyde and the climate was controlled the results became much better

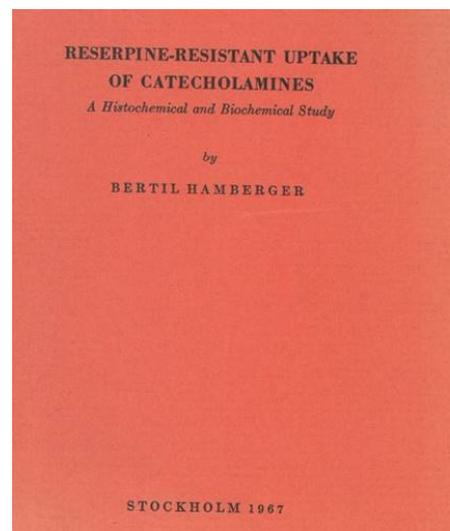
### **Thesis**

This led to my thesis which I defended in 1967, right. My first opponent was Professor Folke Sjöqvist. At that time it was common to have a second opponent whom you could chose yourself and I choose my friend in the monoamine group Gösta Jonsson Fig 3.

After the dissertation I stayed in the group and lab until 1986 parallel to my medical studies and surgical education. This year I was appointed professor of Surgery at Karolinska Institutet and consultant(överläkare) at Karolinska Hospital and moved my laboratory to the hospital.

### *Factbox 2*

- *Literature search: Current contents every week with several hundred major peer-reviewed journals*
- *Manuscript preparation: Cutting and gluing*
- *Photo work in own lab, developing and printing*
- *Figures manually made*



*Figure 1(right) The dissertation was at that time in tails. In the picture the second opponent Gösta Jonsson(back) is thanked by Bertil Hamberger.*

