guidelines issued by the Board for the establishment of a non excessive price. In that respect, the Board in my view is to be commended for its scientific approach and ability to provide the corporations involved with specific evaluation methods.

My second comment is to recognize the very positive results on the evolution of drug prices and the increase in research and development expenditures. An analysis of 60 per cent of existing patent drugs shows that, contrary to the concerns of those who opposed Bill C-22, patent drug prices increased less than the consumer price index. On the other hand, corporate members of the Pharmaceuticals Manufacturers Association of Canada have increased substantially their contributions to research and development and there is every indication that their commitment to achieve 8 per cent by the end of 1991, and 10 per cent by 1996 is well on the way to being met. You will remember that PMAC membership includes 71 innovative corporations, 54 per cent of which are subsidiaries of American companies, 31 per cent of European companies, and 15 per cent are companies owned by Canadian interests.

My third comment is that I remain cautiously optimistic about the evolution of overall drug prices. As confident as I am about the possibility of effectively controlling increases at the cost of existing products, I am also aware of the emergence of very costly new ones. Three examples come to mind. An anti-thrombolytic drug is claimed to have superior effectiveness in fluidifying a blood clot, which as you know is the starting point of coronary thrombosis, which in turn causes myocardial infarction. The drug costs $3,000 per treatment, which is ten times higher than that of a drug used until now. A number of cost-benefit studies are underway to justify the systematic use of such a treatment. In view of the frequency of heart attacks which are responsible for some 25 per cent of Canadian deaths, the impact of that one drug on the total cost of pharmaceuticals is easily imagined. Another example is the use of "non-ionic susbstances" for opacifying vessels previous to X-Ray examinations. They are currently used for heart catheterization for example. Those substances with a low rate of side effects nonetheless are ten times as costly as traditional opacifiers. Finally, a number of antibiotics that are effective against increasingly resistant microbes are expensive, and so are many anti-rejection and anti-AIDS drugs. Only the future can tell what impact those new products will have on the evolution of overall drug costs in relation to the consumer price index. Those examples point to the very great significance of the study being undertaken by the Board on the prices of new patent drugs. The second annual report should provide useful information on that matter.

My fourth comment is related to the first. I am glad to see the meticulous work done by the Board and the sophisticated methods it uses to give us well documented information on the prices of patented medicines. The very existence of such a control mecanism imposes many precise rules to the innovating companies. Those who will take time to read it thoroughly will be reassured by this first report.

Finally, I can say that I am very optimistic about the growing implication in research and development of the member companies of the Pharmaceutical Manufacturers Association of Canada.

I am convinced that their patents being better protected (despite a still significant disparity between Canadian law and that of other industrialized countries) our scientists will show their ingenuity and their talent and will undoubtedly discover molecules that will prove useful to the entire world.

Promising signs can be seen on the horizon. For example, I was in attendance last February 2 for the signing of an agreement between Glaxo, a Britain-based multinational corporation, and I.A.F. (Institut Armand Frappier) Biochem of Montreal. Glaxo will pay I.A.F. Biochem $3 million annually over a period of up to five years to finance research aimed at discovering new agents to treat various types of viral infections—particularly AIDS—and cancer. Such interest stems from the 1987 discovery by Dr. Bernard Belleau, who died recently, of a molecule called BCH 189. Dr. Belleau discovered this molecule in his McGill University and Biochem laboratories. This molecule is said to be more effective and less toxic than AZT which is now used to treat AIDS cases. It will take months and many clinical tests before it can be marketed. A product like this might become the prototype of a series of "nucleosides" whose synthesis would show their effectiveness against particularly fatal diseases. Thanks to the research and development financial support of innovative companies, other teams of Canadian researchers will also have an opportunity to create new products and make a name for themselves in our international scientific community.

Honourable senators, I wanted to give you a summary of the report which confirms the expectations I entertained when together we debated Bill C-22. I hope the long-term results will sustain the optimism generated by the publication of this first progress report.

I thank you for your kind attention.

On motion of Senator Frith, debate adjourned.

• (1640)

The Senate adjourned until Tuesday, March 13, 1990, at 2 p.m.