



INTRODUCTION

Glycobiology at the millennium: A look back and a glance ahead

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This Triple Issue is designated as the Millennium Issue and is entitled 'Glycobiology at the millennium: a look back and a glance ahead'. The purpose of this Special Issue is to publish review articles by distinguished glycoscientists, whose contributions over the last 30–40 years has lead to the emergence of a totally new scientific discipline, what we now know as Glycobiology, and the establishment seventeen years ago of a journal, the *Glycoconjugate Journal*, which has helped in the development of the special identity of this subject.

The idea for this Special Issue arose when I read the above title for a Glyco XV lecture given by Dr Stuart Kornfeld at the last IGO meeting in Japan. I thought this was an excellent title for a Special Issue at the end of the millennium. After getting Dr Kornfeld's permission to use the title, I wrote to a number of distinguished scientists in the field who were very enthusiastic about the idea and the project was borne.

I asked the contributors not only to describe the development of their own substantial research efforts over the last decades and how this has improved our understanding and helped to formulate our ideas in glycobiology, but also to put their contribution into a historical context in relation to developments that were occurring in other related areas at the same time. I felt that it was important for readers of the *Glycoconjugate Journal*, who may be relatively new to glycoscience or biomedical research, to benefit from the substantial experience and depth of perception that the contributors have to offer. I felt that it was all too easy to dismiss what has gone before and say in hindsight that the final conclusions were obvious, without asking what were the key questions that were asked at the time and why was a particular direction followed? I wanted the contributors to tell us about the tortuous path they travelled and what were the trials and tribulations they experienced, what were the blind alleys they

followed, and how did they eventually see the light at the end of the tunnel?

It was a very difficult task to establish an order for this Special Issue because most of the contributions were such epic narratives covering many diverse aspects of biological research. In the end I decided to group contributions that covered vaguely similar areas. The issue starts with the structural/biochemical aspects of glycobiology, moves into applied biochemical/biological areas and finishes with biochemical/pathological topics. I must admit I was slightly influenced by Professor Kobata's title in placing his article first. I hope the order meets with approval and I hope that I have not offended anyone by putting him or her in the middle or near the end. The order is no reflection of the importance of the work described.

It is obvious that some scientists who have made major contributions to this field are missing from this issue. In some cases this is because they missed the deadline for the issue, and in other cases it is because they were currently too busy to cope with such a daunting task. I am hoping that in the near future I can persuade, cajole and blackmail sufficient contributors to be able to have another Special Issue, possibly entitled 'Glycobiology in the 21st Century'.

It is not often that you have the opportunity to work with a group of people who played such a major part in establishing a new scientific discipline. In the last 6 months I have had this privilege. In reading their accounts of a lifetime in research you really feel the excitement, vision and energy of their endeavours. I thank them all for being part of this big adventure.

Since writing this introduction to the Millenium Issue, I received an obituary from Dr Ten Feizi and Dr Ken Lloyd. In recognition of Dr Kabat's contribution to modern-day glycobiology I have inserted the obituary at the beginning of this issue.