



## News and Views

### FIRST ADVANCED COURSE ON ALGINATES AND THEIR APPLICATIONS

University of Trondheim, Norway, 2–5 June, 1991

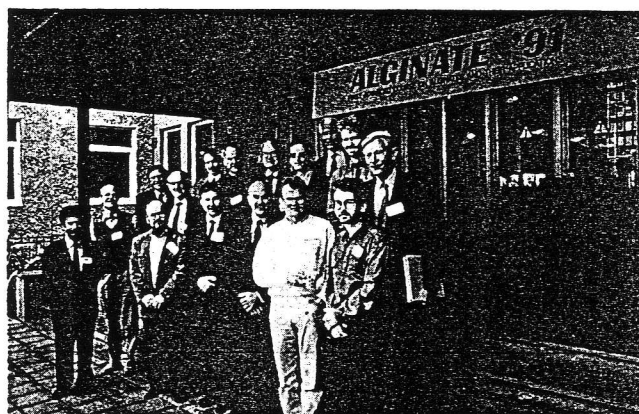
Trondheim used to be the capital of the Old Norse Commonwealth. For the last 40 years it has also been the capital of alginate research.

The importance of alginates in the food, biotechnology and pharmaceutical industries, as well as in medicine is now undisputed, and over these 40 years—led by the Trondheim team—there have been many important advances in our understanding of the nature and behaviour of these polysaccharides, coupled with the innovative use of these substances for a wide variety of applications. The time was therefore long overdue for an advanced course to cover these developments: and it was highly appropriate that Trondheim was the venue.

The format consisted of a series of lectures given by expert academics and product developers, covering the whole field from basic science and traditional uses to the most challenging future applications. Each lecture of around 45 minutes' duration was followed by about fifteen minutes' discussion, together with ample opportunity for further individual discussions.

The first day of the course focused on biochemical aspects centering on lectures by A. Jensen (global resources of seaweeds), I. Sutherland (microbial alginates), B. Larsen (biosynthesis of alginates), A. M. Chakrabarty (genetics of alginate synthesis in *Pseudomonas aeruginosa*) and S. Valla (cloning of the C-5 epimerase from *Azotobacter vinelandii*). The second day considered the structure–function aspects centering on lectures given by O. Smidsrød (ion-binding and gel formation), H. Grasdalen (sequence determination by nuclear magnetic resonance), S. Paoletti (molecular weight distribution), D. Brant (solution properties and conformational aspects), B. Stokke (chemical and physical heterogeneity; influence of block length distribution on gelling properties) and J. Mitchell (rheology of solutions and gels).

Having given us a firm grounding in the basic science, the final day of the course considered specific applications, centering on lectures given by A. Steinnes (traditional applications of alginates), H. Einig (phar-



maceutical applications of alginates), R. J. Schmidt (alginate fibres: alginates in wound management), K. I. Draget (new gelling systems—macrogels), G. Skjåk-Braek (alginate as immobilization material), M. Munir (use of alginates in bioreactors), T. Espevik (immunological aspects of alginates) and S. Moe (chemical modification—superswelling gels).

Each lecture (to an audience of 70–100 participants) was followed by lively and constructive discussion. As a non-expert I learnt a lot within a relatively short period of time, the extensive course notes in particular proving highly useful.

Possibly this course might stimulate the appearance of similar courses focusing on other very useful saccharides such as pectins or xanthan. It would be appropriate also to encourage the setting up of bursaries to facilitate the attendance of graduate students and other 'younger' scientists.

In conclusion the organisers, O. Smidsrød, G. Skjåk-Braek, K. Draget, B.-E. Christensen, B.-T. Stokke, W. Strand (all at NOBIPOL, Trondheim) and L. Tomasgaard (Protan, Drammen), are to be congratulated by the saccharide community for putting on this highly useful course.

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