

Superior Flow Rate Is Only Half The Sartorius Story...

Take the Sartorius Flow Rate Challenge and see for yourself.

In a side by side comparison, capsule filters from the three largest manufacturers are tested on the same manifold: All three filters have a 1 ft² surface area and use the same fitting under the exact same conditions. Only the Sartorius filter consistently yields the best flow rate. Imagine the cost savings, time savings, and material savings with a capsule offering as much as twice the flow rate of your present capsule!

From cellulose acetate and PTFE to polypropylene—every Sartorius capsule filter meets or exceeds HIMA standards of retention demanded by the pharmaceutical industry. And our capsules also meet the compatibility and extractables requirements of the USP XXII.

So stop wasting time, material and money—take the Sartorius Flow Rate Challenge and go with the flow.

Call (800) 368-7178

Sartorius Corporation
Filtration Products Division
140 Wilbur Place
Bohemia, NY 11716

**FOCUSED
FILTRATION**

sartorius

Circle No. 266 on Reader Service Card

WHAT GOES AROUND COMES AROUND

NETWORK WORKS FOR ITALIAN FIRM

POMEZIA, Italy—Raggio Italgene, an Italian cancer diagnosis and therapy company located here, has signed a letter of intent with PharmaGenics (Allendale, NJ) concerning the joint development and marketing worldwide of antisense drugs for cancers. The agreement, the terms of which have not been disclosed, covers compounds used in *ex vivo* and *in vitro* therapy of solid tumors and leukemias associated with the *c-myc* and *c-abl* oncogenes. Under the agreement, PharmaGenics will provide chemically modified antisense compounds which will be tested for improved pharmacodynamics and pharmacokinetics. The two companies expect to be able to initiate sales of the antisense products by 1994.

The agreement represents for Raggio Italgene just a first small step towards the antisense therapeutics market. Yet its significance may be more wide-reaching. As a model for the development of other companies, any success for Raggio Italgene may have implications for Italian biotechnology elsewhere and, perhaps, for industrial biology in the southern states of Europe in general.

In essence, Raggio Italgene has been created from naught. It has drawn its resources—scientific, financial, and managerial—from far afield. Though its chief executive officer, Giovanni Cozzone, is Italian, its director of research and development, Jos van Ren swoude, came in May from the University of Amsterdam (The Netherlands). At the same time, its commercial director, Edwin Moses, left Enzymatix (Cambridge, U.K.) to join the company. The company's scientific founders were a group of U.S. scientists led by Carlo Maria Croce of Fels Institute (Philadelphia, PA) and Hilary Koprowsky of The Winstar Institute (Philadelphia, PA).

Raggio Italgene's financing has been equally cosmopolitan. Its founding capital of \$6 million was provided in December 1986 by a consortium of venture and corporate investors. Led by Raggio di Sole Biotechnologie (Rome), the group included Partech, a venture-capital arm of Paribas Europe Investments (Paris); bio-Merieux Italia (Rome); and Istituto Merieux Italia.

There is, of course, a good reason why the hub of Raggio Italgene's international network is in southern Italy. The location gives a company incorporated under Italian law, independent of ownership, the right to several regional development incentives from both the Italian government and the European Community. In October 1989, for instance, Raggio Italgene received \$4 million of a \$7 million investment in its diagnostic production facility as public-sector finance.

Networking has had to be a key part of the company's strategy. As Giovanni Cozzone explains, "When we identify a niche market segment of compounds that seem promising, we look for research centers and partners that could share our competences and try immediately to work with them." The PharmaGenics agreement is a good example of that network at work. In January 1991, Raggio Italgene received an exclusive worldwide license to two patents held by Temple University (Philadelphia, PA) which covered the fundamental discovery that normal and malignant hematopoietic cells manifest differential sensitivity to the growth-inhibitory effects of antisense oligodeoxynucleotides targeted against *c-myc* and *c-abl* proto-oncogenes. The new agreement, in effect, takes that intellectual property back to Philadelphia, bringing in a partner with a credible record in cancer therapeutics.

—Angiola Bono