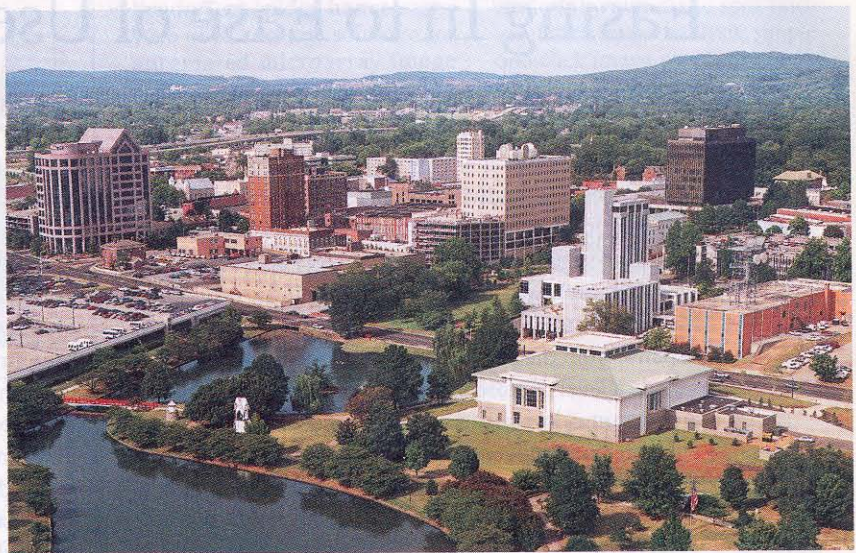


Southern Emergence

Why Huntsville, Alabama, will be the next biotech hotbed.

By Laura Huckabee-Jennings



Downtown Huntsville offers an inviting mix of Southern charm and scientific spirit.

WHEN THINKING ABOUT BIOTECH CENTERS, Alabama is probably not at the top of most people's lists, but it may be moving onto radar screens across the country, thanks to some visionary local entrepreneurs, a very supportive government, and communities rich with intellectual capital looking for new outlets.

Huntsville, Alabama, has long been known as a fast-growing community of entrepreneurial defense and space contractors. At the heart of the space program in the 1960s, Huntsville attracted brilliant scientists and engineers to the area to work with Werner von Braun, and many of them stayed to start their own companies in related fields. The small town of 15,000 boomed to nearly 300,000 over the succeeding decades, boasting the highest concentration of engineers in the country, and continues to grow rapidly.

But why is biotechnology thriving here? As entrepreneurial environments go, this is one of the best — in May 2005, *Forbes Magazine* rated Huntsville the sixth "Best Place for Business and Careers," noting it as one of 10 areas that "stand out when it comes to keeping costs down and attracting smart people." For growing companies, all the successful entrepreneurs of the '70s, '80s, and '90s have created a wonderfully open angel capital network eager to share expertise as well

as provide funding to local companies, creating a friendly and nurturing environment for starting or growing a business. While support is plentiful, the expertise in the biotech industry is working to catch up, and as local capitalists become more experienced in biotech, the Huntsville area will experience greater, rapid and more long-term growth and funding.

Following in the great tradition of Huntsville entrepreneurs, biotech scientists and engineers formerly employed by

Research Genetics (now part of Invitrogen) and other successful local bio and pharma companies, have started biotech companies of their own. Throughout the last 15 years, these companies have overcome the stigma of being located outside the traditional biotech centers, and today more than a dozen biotechnology companies now call Huntsville home, including companies developing and manufacturing products such as genomic research tools, novel drug delivery systems, drugs, and diagnostics.

Institutional Initiative

Pulling together this entrepreneurial spirit and innovative research is the Hudson-Alpha Institute for Biotechnology (HAIB), which broke ground on its 230,000-square-foot facility earlier this year. With more than \$130 million in capital already, the HAIB is recruiting world-class scientists to its facility to work on projects driving genomic innovation towards personalized medicine and bringing those innovations to market more quickly through close collaboration with biotech and pharmaceutical companies. In support of the HAIB, the State of Alabama contributed \$50 million toward the construction of its main building.

This developing community includes a wide diversity of business models. Open Biosystems, the largest of the startups, is

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HQ, sales and marketing, clinical trial management, and regulatory affairs.

Significant biomanufacturing is taking place throughout Ireland in companies such as Allergan, Schering Plough, and Genzyme. There is strong indigenous activity also with the formation of a number of Irish companies including Biotrin, Archport, Trinity Biotech, and EIRx. Elan Corporation has recently established a sterile biopharmaceuticals plant, and Amgen announced earlier this year that it will be investing more than \$1 billion to build process development, bulk manufacturing, and fill finish facilities in the south of Ireland. Wyeth, at a cost of \$2 billion, has built the world's largest biotechnology manufacturing and development plant at Grangecastle, Co. Dublin. It has also established a biotherapeutic drug discovery research facility on University College Dublin's campus that will comprise top-class research scientists focusing on product discovery, preclinical research, and drug discovery technology development. This type of investment reinforces the caliber of Ireland's abilities in the field of leading-edge R&D within the international pharmaceutical and biopharmaceutical community.

One of the most interesting developments in recent months is the pre-approval of a biopharma campus in Galway on the west coast of Ireland. This is a fully permitted biopharma campus with unparalleled flexibility. The campus is a 67-acre construction-ready site. The site includes planning permission for water purification buildings, waste water treatment facilities, laboratory, fermentation, purification, and fill finish buildings, along with all other ingredients



PRE-APPROVED PROPERTY: This fully permitted, 67-acre, construction-ready site in Galway includes planning permission for all the necessary ingredients for a biopharma campus.

necessary to implement a fully operational biopharma campus.

Ireland is also establishing a national bioprocessing research, education, training, and service facility (NIBRT). The facility, with a capital investment of more than \$80 million, will provide, in conjunction with academic institutions, a substantial output of people with high-level best-practice skills across the spectrum of bioprocessing activities, applicable in a real-time scale-up environment. Other biopharmaceutical research collaborations

that are currently taking place in Irish universities incorporating corporate links have seen investment by Wyeth, Medtronic, Proctor & Gamble, and Becton Dickinson. The activities of these companies, combined with indigenous company formation and growth, research effort by the universities, and increasing involvement by the hospitals in clinical research coupled with proactive Government support has created a major cluster with a vibrant networked professional community. It is one of which Ireland is rightly confident will continue to contribute to the development of the industry, and maintain Ireland's place at the center of global biotechnology. ●

USEFUL WEB SITES

IDA Ireland: www.idaireland.com

Biotechnology site for Ireland:
www.biotechnologyireland.com

Science Foundation Ireland: www.sfi.ie

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building business in research reagents, including leading-edge RNAi technology and the world's largest fully sequenced clone collection. The company commercializes the latest developments in the lab for broad distribution on an open-source model similar to the software industry. Source CF, in contrast, serves the cystic fibrosis market with innovative quality-of-life-enhancing products to reduce the impact of the disease. Finally, Applied Genomics is using genomic differences in breast cancer and other diseases to better treat patients on the basis of their genetic makeup.

These and other biotech and pharma-

ceutical companies, along with the HAIB and local universities, have formed a cooperative organization called the Partnership for Biotechnology Research, which encourages sharing of research results and helps nurture young scientists in biotechnology and pharmaceutical-related fields. The organization brings in scientific leaders from around the world to share their enthusiasm and developments in the field and encourage local scientific work.

With these meaningful advantages and so much enthusiastic support from the community and government, Huntsville's biotech community is gaining momentum and praise from locals and new biotech transplants alike. Just ask the CEO of Operon, who recently moved the company's entire facility to Huntsville from Maryland,

and anyone who made the transition to this vibrant and diverse community with high growth potential.

The biggest challenge for biotechnology in Huntsville is finding enough qualified people to fill the growing number of jobs being created. Universities provide some candidates, but others are continually being recruited from elsewhere to fill the gaps and continuing to develop the cosmopolitan feel of this midsized city. Expect to hear more about Huntsville and Alabama in biotech circles. Momentum is building, and biotech companies from Alabama may be recruiting you next! ●

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