

# XY

**T H E**  
**f i l e s**  
a t i m e l y u p d a t e t o X Y s t o c k h o l d e r s  
**M A R C H 2 0 0 0 / I S S U E 3**

## **XY Issues First Commercial License**

XY signed its first commercial license agreement on Jan. 4 with Cogent, the British membership-based breeding program launched in 1995 by the Duke of Westminster in Chester to improve the quality of the United Kingdom's dairy herds. As part of the initial licensing agreement, Cogent paid XY a \$500,000 signing fee and became XY's exclusive commercial licensee for cattle applications in the United Kingdom and Ireland. First commercial sales are anticipated this year.



"Cogent invested in XY in 1998 and has since supported XY strongly at the financial, scientific and board levels," said Mervyn Jacobson, XY CEO/president. "They have been a good partner and it is appropriate that they have the honor of becoming our first commercial licensee worldwide."

Over the past 18 months, Cogent has worked closely with XY researchers to refine techniques and improve conception rates among British cows using sexed semen. In May 1999, Britain's first calves produced via sexed semen combined with artificial-insemination techniques were born at Cogent.

## **Annual Stockholders Meeting**

The annual stockholders meeting was held October 28, 1999, and approximately 40 individual XY stockholders attended. Tallying in the proxies sent by those stockholders who could not attend in person, a pleasing total of 96% of all issued stock was duly presented.

Stockholders heard reports from XY President Mervyn Jacobson, Corporate Treasurer Judy Firestien and Vice President of Research Duane Garner. XY's public relations consultants, ISIS Public Relations and Marketing, attended the gathering to formally launch the new XY website.

Stockholders voted to increase the number of directors from six to seven, on substantial completion of round three funding. The following directors were then duly elected at the meeting: Dr. Mervyn Jacobson, Dr. Gordon Niswender, Mr. Nigel Ferrey, Dr. Don Maul, Mr. Tim Heywood and Mr. Paul Daniel. Subsequently, Dr. Alejandro Cantarell, of Argentina, was nominated as the seventh director.

## New XY Board Directors Appointed

## XY Funding Report

Since we last reported on appointments to the XY board of directors, two new directors have been named.



DON MAUL

**DON MAUL.** Director of Laboratory Animal Resources (LAR) for Colorado State University, Dr. Maul, was nominated and appointed at the June 14, 1999, board meeting. Dr. Maul was nominated by Cytomation and replaces Matt Ottenberg who resigned from the XY board in June 1999.

Dr. Maul, who did his undergraduate and graduate work at Colorado State University, received a doctorate degree in veterinary medicine from CSU in 1981. He completed a residency in Primate Medicine and Laboratory Animal Medicine at the California Primate Research Center (CPRC), University of California-Davis, in 1983. During his residency, Dr. Maul worked with a team to define an emerging clinical syndrome in macaques—Simian Acquired Immunodeficiency Syndrome—which is a model for HIV in humans.

He completed a master's degree in immunology in 1987 and was appointed assistant director of CPRC. In 1987 he returned to CSU to assume his current position of director of LAR. Dr. Maul became board certified by the American College of Laboratory Animal Medicine in 1989. He also serves as a consultant to Nexstar Pharmaceuticals, Inc., Boulder, Colo.; HealthOne Research, Denver, Colo.; and University of Northern Colorado, Greeley, Colo.



PAUL DANIEL

**PAUL DANIEL.** Managing director and founder of European Financial Products S.A. (EFP), which provides financial solutions to companies throughout Europe, Mr. Daniel received a law degree with honors from University College, London, in 1981.

Mr. Daniel began his financial career in 1981 with County Bank, London, where he served as the international executive responsible for raising funds in the international capital markets for Far Eastern financial institutions.

From 1985 to 1993 he was with Morgan Stanley, International, London, where he was responsible for the firm's derivatives business in Europe and for developing the firm's swaps and options business. From 1993 to 1995, Mr. Daniel directed Morgan Stanley, Asia, where he was responsible for the non-Japan, Asian-fixed income business. He also served as global co-head of the derivatives business. Between 1995 and 1999, Mr. Daniel served Morgan Stanley Dean Witter in New York and London. He managed the New York derivatives business, and in London, he was responsible for the fixed-income business in Europe.

As previously reported, in 1997, XY resolved to raise \$10M to fund its research and development program through to commercialization. The first phase—round one—sought to raise an initial \$1M by selling 1 million XY shares at \$1 each. This was successfully accomplished in 1997.

The second phase—round two—sought to raise a further \$3M by selling 600,000 XY shares at \$5 each. Round two was completed in mid-1999. In late 1999, we launched round three—our ambitious plan to sell a further 600,000 XY shares at \$10 each to raise \$6M.

We are delighted to report that by March 2000, we have received subscriptions and funds for more than \$4.2M of the target \$6M for round three, and we also have current pledges for another \$1M. We now expect round three to close fully subscribed in the first half of 2000. Completion of this round should provide XY with sufficient funds to carry us safely into cash positive revenues from our unfolding commercialization strategies.

In fact, XY may not need to pursue any further formal funding rounds. Therefore, all current XY stockholders wishing to increase their holdings in XY are urged to indicate this to XY management now — before all available shares are duly pledged to others. It is perhaps also humbling to note that at the end of round three, the market will value our company at some \$70M.

### ACCOUNTING AND AUDIT

XY now prepares monthly accounts for management purposes, which consolidate the operations of our U.S. parent XY, Inc. and our U.K. subsidiary, XY, (UK) Limited. Our first formal audit for year 1998 was presented at the XY stockholders meeting in October 1998. Should any stockholder wish to receive a copy, please let us know. Meanwhile, the audit of our 1999 accounts has begun.

**“The message to stockholders from such success is that your company is now financially secure, debt-free and able to fund all its current objectives.”**

— Tim Heywood,  
managing director, Cogent

## Expanding the Scientific Agenda

XY's scientific agenda continues to move forward at a satisfying pace.

**CATTLE.** At the beginning of this year, some 2,000 sexed pregnancies had been achieved by XY and its collaborators. With additional collaborators now joining our efforts, it seems we could now exceed the planned 25,000 breedings previously projected for the current year. Significantly, we now look forward to the first modest commercial sales and revenues from cattle applications in the current year.

**"It is possible we will see our first, modest revenues from commercial equine breeding in the current year."**

**HORSES.** The impending births of another 10 sexed foals later this year is a direct outgrowth of our success in producing "Call Me Madam" — the world's first sexed foal — in 1998 and the delivery in 1999 of four foals produced by artificial insemination and sexed semen.

The techniques being developed for equine reproduction are progressing rapidly, and it is possible we will see our first, modest revenues from commercial equine breeding in the current year. In support of this plan, XY hired its first equine specialist, Allison Lindsay, in February 2000.

**PIGS.** The XY Pig Consultative Committee (PCC) continues to make steady progress. Dr. Detlef Rath, of FAL, Germany, and Dr. Chis Maxwell, of University of Sydney, have each taken delivery of their sperm-sorting MoFlos, and we look forward to the PCC research program moving strongly forward.

**EXOTIC SPECIES.** XY continues to evaluate the biological challenges and commercial opportunities in relation to sexing elk, bison and certain transgenic animals, such as transgenic cattle and goats.

**ENDANGERED SPECIES.** XY firmly believes that its powerful sexing technology, while building strong business opportunities, also should be offered to help selected programs striving to save endangered species. To that end, the XY board of directors recently approved a special budget for this purpose.

Current endangered-species proposals that appear to meet our criteria include: (1) western lowland gorillas, in conjunction with Sydney University and Taronga Zoo, Australia; (2) western lowland gorillas, Siberian tigers and South American tapirs in conjunction with Henry Doorly Zoo, Omaha, Nebraska; (3) Mohor gazelles in conjunction with Institute of Zoology, London; and (4) Cleveland Bay horses in the U.S.

**"Having followed the development of sperm-sexing techniques for a number of years, I was particularly intrigued by your comments (at the ESDAR meeting in Angers) about the possibilities of using this technology for the conservation of endangered species because that is my main area of interest. "**

*— Quoted in a letter to Dr. Mervyn Jacobson from Dr. Bill Holt, director, Institute of Zoology, London*



## XY Infrastructure

### JONES, LAB TECH WITH A WORLD CONSCIENCE

Kathy Jones' love for animals is nothing to sneeze at. As XY's senior laboratory technician and MoFlo operator, Kathy's passion for preserving exotic and endangered species is a perfect match for XY's commitment to helping zoos and other wildlife sanctuaries do just that.

However, sneezing—or rather a severe allergic reaction to most animals—ended Kathy's dreams of becoming a veterinarian and sent her on her way to becoming an avid researcher in the cutting-edge field of sex-selection in animals.

Following her graduation from Colorado State University with a bachelor's degree in biology, Kathy worked for three years as a supervisor for a plasma donation center in Fort Collins. While the work of screening donors, testing blood and freezing plasma was challenging, Kathy, a native of Longmont, Colo., says, "I really wanted to get back into research.

"I have always had an interest in helping preserve threatened species, and I believe that the research being conducted at XY has the potential of being applied in this area."



KATHY JONES

Spotting an XY position announcement in the local newspaper, Kathy applied for a lab position, was hired and has, by her own admission, had the good fortune to work with XY for two very exciting years. "The advances XY has made are phenomenal," she says. "The technical modifications on the MoFlos have enabled us to sort much faster, and we have made great progress in increasing sperm viability throughout the sorting process."

She adds, "It's exciting to work here, and Dr. Jacobson's enthusiasm for the potential to help save exotic and endangered species through sex selection transfers to the employees."

Currently Kathy spends her days at XY staining, sorting and freezing semen samples... and setting her sights on the horizon. In the next five years, as XY's reach continues to expand, Kathy says she hopes to extend XY's technology to zoos and other conservation centers. "I would like to be involved in the development of protocols for sorting and freezing semen of exotic species."

### FIRESTIEN, XY'S "JACKIE OF ALL TRADES"

You've all spoken to Judy Firestien—XY's "Jackie of All Trades"—in one of her many roles: as XY's corporate treasurer, human-resources manager, corporate secretary or executive assistant. Judy, who served as an executive assistant at MoFlo manufacturer Cytomation before moving to XY in 1998, regularly assists XY's CEO/president as fast-paced negotiations, speedy faxes and phone calls at all hours unfold with potential research collaborators or licensees.



JUDY FIRESTIEN

"XY is such a unique company that focuses on such a unique topic," she says, then with a laugh notes, "A visitor even complimented me once that I was able to say 'sperm' without missing a beat." It's Judy's quiet sense of humor, combined with her deep know-how of XY's business operations that make her such an asset. "Judy has spent countless hours ensuring that XY management is well supported and that queries are answered promptly and thoroughly," says XY CEO/President Mervyn Jacobson. "She creates such a terrific presence for XY."

Judy, who grew up on a farm about 30 minutes from XY offices, graduated from Colorado State University in 1990 with a business-marketing degree. While in college, she was named an Outstanding College Student of America. After graduation, she worked for several companies in Northern Colorado, then became a general office assistant at Cytomation in 1993. Three years later, she was named executive assistant to Cytomation's president/CEO.

In 1999, the XY board of directors elected Judy XY's corporate secretary. Today, Judy is continuing her business education by enrolling in an accounting course. Within the coming year, she plans to participate in a human-resources seminar at Colorado State and, eventually, pursue additional business courses.

## Steady Increase In Sperm-Sorting MoFlos

It is interesting to note that at the beginning of 1999, only four sperm-sorting MoFlos were in operation worldwide (two at XY headquarters, one at the USDA, and one in the U.K.). By the end of 1999, 11 were committed to the purpose (three at XY, three in the U.K., one in Switzerland, one in Germany, one in Australia, one at the USDA and one in transit to Japan). It is exciting to note that by the end of 2000, we expect the number to increase by around 30, and by the end of next year some 70 sperm-sorting MoFlos will be in operation worldwide.

## **XY Attracts International Interest**



HIROYUKI HAYAKAWA, DVM, OF THE HOKKAIDO LIVESTOCK IMPROVEMENT ASSOCIATION, MEETS CALL ME MADAM IN OCTOBER 1999.

Scientists worldwide continue to visit XY management and research facilities in Fort Collins, seeking to establish research collaborations, potential partnerships or possible licensing agreements with XY. Visitors in recent months include representatives from:

Russia - Russian Agricultural University in Moscow

Denmark — Royal Veterinary and Agricultural University (KVL)

Argentina — Goyaike S.A.

Canada — Alta Genetics

Switzerland — Swiss Embryo Transfer (SET)

Japan — Hokkaido Livestock Improvement Association (HLIA) and the Livestock Improvement Association of Japan (LIAJ)

Australia — University of Sydney

Finland — Finnish Animal Breeders Association Laboratory

Britain — Cogent and the Thoroughbred Breeders Association

## **Public Relations and the Public Perception of XY**

**WEB SITE.** Not only has our good news gone global—so has our web site. Launched in October 1999, the XY web site has attracted kudos from scientists, investors, potential collaborators and stockholders the world over. Take a tour of the web site and you'll find an historic timeline with colorful photos that track the history of sexed semen; an animated MoFlo diagram with easy -to-understand explanations of how semen is sorted; and current news and updates on XY personnel and research activities.

**PROMOTIONAL BROCHURE AND POCKET FOLDER.** We're also using attractive and informative promotional brochures and pocket folders to convey the XY message professionally and colorfully.

**XY IN THE NEWS.** Recent "hits" in the media include a story on our celebrity debutante, "Call Me Madam," in *Pferde Woche*, Switzerland's top equine publication; a lengthy story in *Paint Horse Journal* on XY's sex-selection work; and news in such industry publications as *Dairy Today*, *Beef and Western Livestock Reporter* that XY's semen-sexing technology for cattle is likely to go commercial in the next two years.

**XY SOUGHT OUT FOR MAJOR ANIMAL REPRODUCTION CONFERENCES.** XY personnel now are eagerly sought to explain XY's scientific successes and also its future commercialization strategies to audiences worldwide. Dr. George Seidel, director of science at XY, recently presented papers in China, Holland, the U.K. and Italy.

**SPEAKERS.** XY CEO Mervyn Jacobson, Dr. David Cran of XY (UK), Dr. Detlef Rath of FAL, Germany (an XY collaborator), and Peter Reichert of SET, Switzerland (an XY investor and collaborator) each addressed ESDAR, the European Society of Domestic Animals Reproduction, in Angers, France, in November 1999.

Twenty speakers presented papers on sex selection to IETS, the International Embryo Transfer Society Meeting in Maastricht, Holland, in January 2000. Of these presenters, no less than 15 were from XY — either as employees, consultants or research collaborators.

Dr. Jacobson also was guest speaker at a Morgan horse-breeders conference in Portland, Oregon, in February 2000. At the same time, Dr. Cran was guest speaker at an agricultural conference in Verona, Italy.



DR. JACOBSON SPEAKING IN OREGON.

## **XY Personnel Receive Major Recognition**

### **CEO JACOBSON APPOINTED TO GOVERNOR'S ADVISORY COUNCIL.**

Colorado Gov. Bill Owens' Office of Innovation and Technology has appointed XY CEO/President Mervyn Jacobson to the state's Advisory Council on Biotechnology.



DR. MERVYN JACOBSON

"Dr. Jacobson's leadership will help ensure the success of the biotechnology council," said Marc Holtzman, Colorado's Secretary of Technology. "His perspective on biotechnology in the Fort Collins area is extremely important."

Jacobson will be one of 35 leading CEOs, academic researchers and economic-development experts who will advise and guide statewide efforts to enhance Colorado's existing life-science industry and build the state's reputation as a technology hub. The Council will develop a vision for the future of the industry, market existing activities and serve as a single point of contact for the industry. In addition, the Council may examine economic development, business and legislative issues crucial to the vitality of the life sciences.

"I'm honored Gov. Owens selected me to participate in this key group," Jacobson said. "Colorado, with its highly educated population and outstanding economy, already leads the nation in many technology fields. Biotechnology is poised to be the next industry that propels Colorado to a world-leader role."

### **WASHINGTON STATE UNIVERSITY TO HONOR GARNER.**

Duane Garner, XY's vice president of research and development, will receive the Outstanding Alumnus Award from Washington State University's department of animal sciences in April. Garner graduated from Washington State in 1969 with a doctorate in animal sciences.

Jerry Reeves, professor of animal sciences at Washington State, noted that "Duane's scientific expertise in animal reproduction during the last 34 years definitely has increased world knowledge of reproduction. His work to sex semen is so important to the industry and is definitely worth honoring." While at Washington State in April, Garner also will present a seminar "Sexing Mammalian Sperm—Current Status" to students and faculty.



DUANE GARNER

## **Final Word to XY Stockholders**

XY strives to maintain close communication with all its stockholders. If you have any questions or comments regarding XY or the information contained in these reports to stockholders, please feel free to let us know. Finally, if you are thinking of buying more shares in XY, please let us know now, as this window likely will close soon.