

Competing students' science skills sparkle

The envelope please . . . Judges have unveiled the names of 40 high school seniors with the starring research projects of the 1999 Intel Science Talent Search. Selected from 1,470 contestants, the finalists will partake of \$330,000 in scholarships—a \$125,000 increase from last year. Who shall win the lion's share depends on the next round of competition.

After 6 days of additional judging and interviews starting March 3, 10 winners will emerge to claim the top awards. The first-place prize is \$50,000, and second and third places receive \$40,000 and \$30,000, respectively. Fourth through sixth places win \$20,000 each, and seventh through tenth places win \$15,000 apiece. The remaining 30 finalists each receive \$3,000.

This year's finalist group includes 22 boys and 18 girls. The number of female finalists leaped 20 percent from last year. Among the group's ranks are the second home-schooled finalist in the competition's history, the youngest finalist—age 14—since 1978, and the first finalists in more than a decade from Louisiana and Puerto Rico.

The students' research projects spanned the sciences, including astrophysics, biology, ecology, math, physics, and psychology.

Science Service, the publisher of SCIENCE NEWS, has administered the 58-year-old competition since its inception. In previous years, the Science Talent Search was sponsored by Westinghouse. Intel Corp. assumed sponsorship of the contest in March 1998.

Craig R. Barrett, Intel's president and chief executive officer, saluted the finalists. "The success of the United States depends in large measure on continuing to lead the world in innovation and production of high-tech products. The next better ideas will come from these young scientists," he said. Barrett will present the awards March 8.

The 40 finalists are:

- California: Leon Marcel Bellan, Polytechnic School, Pasadena; Rio Gabriel Benin, home-schooled, Berkeley; Erika Natalie Ebbel, Crystal Springs Uplands School, Hillsborough; Nathan Andrew Fleischaker, La Costa Canyon H.S., Carlsbad; Michael Yen Ming Lew, La Jolla H.S., La Jolla.
- Colorado: Natalia Toro, Fairview H.S., Boulder.
- Connecticut: Mary Alice Dombrowski, Glastonbury H.S., Glastonbury.
- Florida: David Lee Harden, South Miami Senior H.S., Miami.
- Georgia: Charles Rollin Mathis, Oconee County H.S., Watkinsville.
- Hawaii: Emi Malia Eno, Henry Perrine Baldwin H.S., Wailuku.
- Illinois: Keith Jonathan Winstein,

Illinois Math & Science Academy, Aurora.

- Iowa: Carol Anne Fassbinder, Valley Community H.S., Elgin.
- Louisiana: Rachel Anne Cox, Airline H.S., Bossier City.
- Maryland: Wei-Li Deng, James Michael Hansen, Grace C-Hwei Lin, Michael Randolph Maire, David C. Moore, and Scott Michael Safranek, all of Montgomery Blair H.S., Silver Spring.
- Massachusetts: Seth Abrams Ament, Falmouth Academy, Falmouth; Scott Alexander Fruhan, The Roxbury Latin School, West Roxbury.
- New Jersey: Binh Dao Vo, Governor Livingston Regional H.S., Berkeley Heights.
- New York: Trevor Alan Bass, Great Neck South H.S., Great Neck; Cullen H. Blake, Bethlehem Central H.S., Delmar; Angela Patricia Burgess, Bronx H.S.

of Science, Bronx; Lauren Cooper, Roslyn H.S., Roslyn Heights; Daniel H. Grollman, Bronx H.S. of Science, Bronx; Shana Traci Lippel, Lawrence H.S., Cedarhurst; Lisa Beth Schwartz, Roslyn H.S., Roslyn Heights; Eric David Stern, Great Neck South H.S., Great Neck; Nicholas Joseph Superina, Smithtown H.S., Smithtown; Diana Barnard Townsend-Butterworth, The Chapin School, New York; Kirsten Graham Wickelgren, Stuyvesant H.S., New York; Alexander David Wissner-Gross, Great Neck South H.S., Great Neck.

- Oregon: Patricia Jeanne Semura, Oregon Episcopal School, Portland.
- Pennsylvania: Brett Charles De Poister, Central Catholic H.S., Reading.
- Puerto Rico: Dorimar Morales, Colegio Maria Auxiliadora H.S., Carolina.
- Virginia: Sirisha Venkata Kalicheti, Chantilly H.S., Chantilly; Kurt Elliott Mitman, Thomas Jefferson H.S. for Science & Technology, Alexandria.
- Washington: Constance JoAnne Wang, Hanford H.S., Richland. —P. Weiss

Who says only one sperm gets the prize?

People in at least 18 societies around the world believe that a child can have more than one biological father, anthropologists now report.

A woman with such beliefs considers the men with whom she has sex during pregnancy as contributing some measure of paternity, and she may publicly acknowledge extramarital lovers as secondary fathers, says Stephen Beckerman of Pennsylvania State University in State College. He presented the latest tally of beliefs in so-called partible paternity at the annual meeting of the American Association for the Advancement of Science last week in Anaheim, Calif.

Before anyone gets smug about the centuries-old Western belief in one father per baby, Beckerman points out that microscope studies didn't confirm the idea for animals until 1879. "It was just a lucky guess [for] Western folk biology."

Diverse societies believe in multiple dads. Most are in South America, with some in India and New Guinea. For example, the Canela in Brazil believe that a fetus keeps incorporating sperm until birth, says William H. Crocker of the Smithsonian Institution's National Museum of Natural History in Washington, D.C. Traditionally, extramarital sex was "rampant and socially correct," he says, and a pregnant woman sought affairs with men she wanted her baby to resemble.

The idea of partible paternity "seems to be much more common than we'd ever thought," says Paul Valentine of the University of East London. He encountered it among the Curripaco in Venezuela and Columbia. The group opposes extramarital sex but employs partible paternity to resolve conflicts. A wife

can appease her husband by stating that he is her baby's main father even though she had sex with a lover.

Partible paternity may benefit children. Among the Bari of Venezuela and Colombia, Beckerman found that 80 percent of kids with extra fathers lived to age 15, in contrast to 64 percent of children with lone dads. Pregnant women with lovers also had less risk of miscarriage, possibly because courtship gifts boost nutrition.

The widespread belief in partible paternity raises doubts about a key factor in what Beckerman calls the standard model of human evolution: the "evolutionary bargain" in which men hunt for family food in return for guaranteed paternity.

Sarah Blaffer Hrdy of the University of California, Davis sees partible paternity as yet another challenge to misleading stereotypes—"the coy female and the ardent male"—in animal evolutionary theory.

Sharing paternity must also have its dark side, observes David M. Buss of the University of Texas at Austin, who studies jealousy (SN: 10/12/91, p. 232). In cultural surveys, "one myth that's been shot down is that there are cultures that don't have sexual jealousy," he says. Crocker, for example, reports suppressed jealousy even among the Canela, where extramarital sex has been sanctioned.

Partible paternity could hit close to home, notes R. Robin Baker, who did infidelity research at the University of Manchester in England. "If Britain recognized partible paternity," he says, "between 4 and 10 percent of children could claim multiple fathers." —S. Milius