rise almost as soon as the embryo implants in the womb, about a week after conception. But previous pregnancy tests have required that HCG levels reach upwards of 1000 international units per liter before pregnancy can be confirmed. This is because HCG resembles another hormone, luteinizing hormone (LH), both structurally and immunologically. To make sure that the test is registering HCG rather than LH, technicians have in the past had to wait for HCG levels to rise higher than is possible for LH.

The new monoclonal antibody binds only to the beta chain of the HCG molecule. Although there is still some risk of cross-reaction with LH, the chance of a mix-up is so remote that the test can detect a pregnancy when HCG levels have reached a mere 125 to 150 international units per liter. This means that a positive test can be obtained one day after a period is due; that is, less than two weeks after conception. In fact, Boehringer Corporation, manufacturer of Event, one of the hospital pregnancy tests using a monoclonal antibody to HCG, is testing patients at infertility clinics to see whether a reliable result can be obtained even before a missed period. As one excutive put it, "Soon we'll be able to tell women they are pregnant before they've even conceived!"

Both the home and hospital monoclonal tests are tube tests and do not use a slide like some of the earlier pregnancy kits. In the home test a woman mixes one drop of urine (collected first thing in the morning when HCG levels are most concentrated) with reagents containing the monoclonal antibody and a diluting solution. In contrast to earlier home pregnancy tests, Predictor and e.p.t. form a ring in the bottom of the tube when the test is negative. If a ring does not form, the test is positive. It takes about two hours to get a result.

The commonest cause of incorrect results in home pregnancy tests is contamination of the urine sample. For example, if the container used to collect the sample has been washed with detergent, it can give a false result. Similarly, insufficient urine or urine not collected first thing in the morning can also give inaccurate results because HCG is not sufficiently concentrated. Another source of error is vibration—for example, if the tube is left on a refrigerator while waiting for the ring to develop.

Predictor 125 and e.p.t. are manufactured by Chefero, part of the Dutch firm Akzo. Other tests, which do not use monoclonal anitbodies to HCG, can be carried out as early as three or four days after a missed period, but the manufacturers recommend a second test about three or four days later to confirm the initial result. The majority of hospital pregnancy tests still require a woman to wait upwards of two weeks after missing her first period.

Home pregnancy tests have become increasingly popular since their introduction in 1971. British women carry out some 400,000 of them each year. Warner-Lambert Co., which markets e.p.t. in the U.S., reports that the non-monoclonal predecessor of the new test has been selling at an annual rate of more than 3 million units. Recent growth has run only around 2 percent, something of a disappointment. Although the company is advertising the updated version of e.p.t. as new and improved, it is not stressing that the test uses monoclonal antibodies, believing consumers would consider the information irrelevant. But it has found, to its surprise, that doctors are reacting excitedly to the test's new high-tech formulation. A spokesman concedes, "Maybe we're missing a bet."

—Jenny Bryan

STOCK PRICES OF SELECTED BIOTECHNOLOGY SPECIALTY FIRMS

	Price March 15	Price April 15	Percent Change	52 Week Hi-Low	Market Capitalization in $ millions (stock price × number of shares outstanding)
Companies Emphasizing Recombinant DNA Technology					
Advanced Genetic Sciences	5¾	4¾	−17	14¾–3¼	52
*Amgen	6⅛	5⅜	−12	18–5¼	54
*Bio Logicals	1⅝	1⅝	0	6½–1¼	10
*Biogen	13¼	12¼	−8	21–9¾	227
*Biotech Research Labs	8	7½	−6	21½–6¾	38
*Biotechnica International	9	6¼	−31	17¼–5¾	24
Biotechnology General	6¼	6	−4	10–5	33
California Biotechnology	10	10	0	14–10	48
*Cetus	11⅜	10¾	−5	19–10¼	236
Chiron	6	5¼	−12	12¼–5	36
*Collaborative Research	8¼	7½	−9	15½–6⅛	74
CooperBiomedical	6	7	+17	11⅜–5	125
*Enzo Biochem	14¼	17½	+23	34¼–13	152
*Genentech	34½	34¾	+1	49¾–25⅞	493
*Genex	13¼	11½	−13	23¼–9½	147
Integrated Genetics	5	3¾	−25	13–3¾	31
*Molecular Genetics	13¾	13	−5	23–10⅞	79
Companies Emphasizing Antibody Production Technologies					
*Bio-Response	10⅞	12¾	+17	16⅛–9⅛	101
*Cambridge BioScience	2½	2⅝	+5	17¼–2¼	11
*Centocor	12¼	10½	−14	20–8¾	74
*Damon Biotech	8	7	−12	17½–6¼	134
*Genetic Systems	7⅛	6	−16	17¾–5¾	118
*Hybritech	15	13½	−10	31–12¼	139
*Monoclonal Antibodies	12½	10¼	−18	21½–10	25
*Summa Medical	5⅜	4¾	−12	18⅝–3⅝	37
Companies Emphasizing Other Products or Biotechnologies					
Applied Biosystems	19	17	−11	21½–13	82
Cell Products	11¾	10¾	−9	24–7¾	45
*Genetic Engineering Inc.	3¾	4	+7	10⅞–3⅜	10
*Immunex	5½	5½	0	13¾–5	31
*Interferon Sciences	4	3½	−12	11–3¼	14
*Ribi Immunochem	8	7½	−6	16½–5¾	22
Vega Biotechnologies	4⅛	3⅜	−18	11½–3	9

The BIO/TECHNOLOGY Index of Specialty Firms stands at 666 as of April 15, down from 695 as of March 15, 1984. The Index is composed of the 23 companies in the chart that are marked by an asterisk. For a more complete explanation of the Index, see BIO/TECHNOLOGY 1:536. In last month's stock chart, two errors in March 15 stock prices were made: Genetic Engineering Inc. should have read 3¾, and Cambridge BioScience should have read 2½.