

Equity Research

**HEALTH CARE**

Life Sciences /  
Diagnostics

January 20, 2005  
**Research Note**

Ticker: ADZA  
Price: \$17.62  
52-week: (\$17-\$21)

Stock Rating:  
**Outperform**

Company Profile:  
**Aggressive Growth**

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# Adeza Biomedical Corporation

## Initiating Coverage With Outperform Rating

### FINANCIAL SUMMARY

Fiscal Year Ends:	December	Dividend/Yield:	\$0.00/0.0%
Long-term EPS Growth Rate:	25%	Market Value (mil.):	\$271

FISCAL YEAR	2003A	2004E	2005E
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<b>ESTIMATES</b> Earnings Per Share	NA	\$0.45	\$0.27
<b>VALUATION</b> Price/Earnings Ratio	NA	39.2x	65.3x

Our estimates are:

2004E EPS: \$0.45 on \$33.4 million revenue  
2005E EPS: \$0.27 on \$42.5 million revenue  
2006E EPS: \$0.58 on \$60.0 million revenue

### COMMENTS ON ESTIMATES

- In fall 2004 there was a one-time reversal of a \$2.7 million accrual of royalties that need not be paid as the company chose not to use the underlying technology.
- We believe that there may be about \$2.5 million of revenue upside possible in 2005 due to the addition already of eight new sales reps, who should become fully productive by midyear. We think this could add about two to three cents to our EPS estimate if achieved.

### INVESTMENT RATIONALE

- The primary, initial market for Adeza's product is in the diagnosis of preterm births (delivery before 37 weeks)--about 480,000 annually in the U.S or about 12% of the 4 million live births (typically 5% to 7% in other developed countries). We estimate that these 12% of births account for 85% of the cost, and we believe that there are ways to help prevent or mitigate if forewarned, including recent evidence that (17 hydroxy) progesterone can reduce the rate in high-risk women.

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Please consult the last page of this report for all disclosures.

- Adeza makes a diagnostic test for fetal fibronectin (fFN), which according to its FDA label has a 99.5% negative predictive value, and the test is recommended by the American College of Obstetricians and Gynecologists, as well as supported by many prereviewed, published clinical trials, in our view.
- We estimate that the company has more than 1,300 placements, predominantly in hospitals and commercial laboratories and that it has sold more than 1 million tests.
- In addition to the “signs and symptoms” market for women going to hospitals, which we estimate is about 800,000, the company is targeting the testing of women known to be at high risk, almost 1.2 million women by our estimation.
- As an extension to this market, the company is also looking to sell tests for women seeking induction of pregnancy (we estimate about 400,000 and growing) and working to create a test or test panel to potentially better predict future timing of delivery as well. This last product could possibly be sold over the counter, in addition to physicians’ offices.
- Other potential market opportunities include the international market for preterm birth, which represents only 3% of Adeza’s revenues today and is conducted by 15 distributors worldwide. We believe that the company will add one or two sales managers in Europe this year to accelerate the process of growing sales.
- Lastly, we believe that there is strong evidence—as with other fetal proteins—that fFN may be used to detect or monitor various cancers, and the company is currently investigating bladder cancer. A proof-of-concept study should be completed as early as this quarter, after which we believe the company will start a pivotal study comparing fFN to cystoscopy for monitoring.

**Adeza Corporation (ADZA)**  
Annual Revenue Model

Estimated Test Sales	2003E	2004E	2005E	2006E	2007E	2008E	2009E
<i>Pregnancy Type</i>							
"Signs & Symptoms"	190,000	240,000	288,000	336,000	372,000	408,000	444,000
High-risk	30,000	60,000	105,000	201,000	258,000	315,000	396,000
Low-risk				24,000	48,000	72,000	96,000
Induction							76,000
Prediction							
<b>Pregnancy Sub-total</b>	<b>220,000</b>	<b>300,000</b>	<b>393,000</b>	<b>561,000</b>	<b>678,000</b>	<b>795,000</b>	<b>1,012,000</b>
Bladder Cancer				9,000	18,000	36,000	54,000
<b>Sub-total</b>	<b>220,000</b>	<b>300,000</b>	<b>393,000</b>	<b>570,000</b>	<b>696,000</b>	<b>831,000</b>	<b>1,066,000</b>
International	6,804	9,278	19,650	42,750	69,600	103,875	159,900
<b>Total</b>	<b>226,804</b>	<b>309,278</b>	<b>412,650</b>	<b>612,750</b>	<b>765,600</b>	<b>934,875</b>	<b>1,225,900</b>
<b>Market Segment Penetration</b>							
"Signs & Symptoms"	24%	30%	36%	42%	47%	51%	56%
High-risk	1%	3%	5%	9%	11%	14%	17%
Low-risk	0%	0%	0%	0%	0%	0%	0%
Induction	0%	0%	0%	4%	8%	12%	16%
Prediction	0%	0%	0%	0%	0%	0%	2%
Bladder Cancer				3%	6%	12%	18%
<b>Estimated Price</b>	<b>\$ 108.00</b>	<b>\$ 103.68</b>	<b>\$ 99.53</b>	<b>\$ 95.55</b>	<b>\$ 91.73</b>	<b>\$ 88.06</b>	<b>\$ 84.54</b>
<b>Estimated Revenues</b>	<b>2003</b>	<b>2004E</b>	<b>2005E</b>	<b>2006E</b>	<b>2007E</b>	<b>2008E</b>	<b>2009E</b>
"Signs & Symptoms"	20,520,000	24,883,200	28,665,446	32,105,300	34,123,347	35,928,583	37,534,802
High-risk	3,240,000	6,220,800	10,450,944	19,205,849	23,666,193	27,738,979	33,476,985
Low-risk	-	-	-	-	-	-	-
Induction	-	-	-	2,293,236	4,403,013	6,340,338	8,115,633
Prediction	-	-	-	-	-	-	6,424,876
<b>Pregnancy Sub-total</b>	<b>23,760,000</b>	<b>31,104,000</b>	<b>39,116,390</b>	<b>53,604,385</b>	<b>62,192,553</b>	<b>70,007,900</b>	<b>85,552,295</b>
Bladder Cancer	-	-	-	859,963	1,651,130	3,170,169	4,565,043
<b>Sub-total</b>	<b>23,760,000</b>	<b>31,104,000</b>	<b>39,116,390</b>	<b>54,464,348</b>	<b>63,843,682</b>	<b>73,178,069</b>	<b>90,117,339</b>
International	734,845	961,979	1,955,820	4,084,826	6,384,368	9,147,259	13,517,601
<b>Sub-total</b>	<b>24,494,845</b>	<b>32,065,979</b>	<b>41,072,210</b>	<b>58,549,174</b>	<b>70,228,050</b>	<b>82,325,327</b>	<b>103,634,940</b>
<i>Growth</i>		31%	28%	43%	20%	17%	26%
e-Tegrity, Meters, Misc	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000
<b>Total Estimated Revenues</b>	<b>25,994,845</b>	<b>33,565,979</b>	<b>42,572,210</b>	<b>60,049,174</b>	<b>71,728,050</b>	<b>83,825,327</b>	<b>105,134,940</b>
<i>Growth</i>		29%	27%	41%	19%	17%	25%

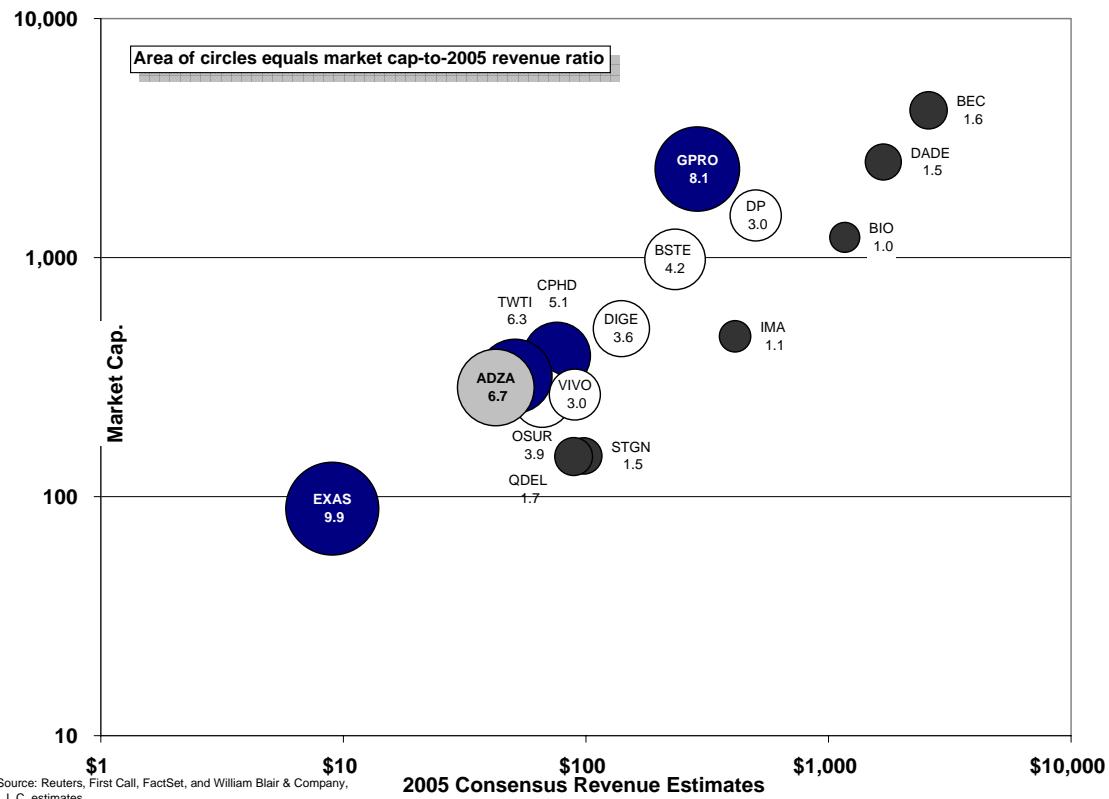
**Adeza, Corp. (ADZA) Summary Income Statement Model**

	1Q04	2Q04	3Q04	4Q04	2004E	1Q05	2Q05	3Q05	4Q05	2005E	2006E
Net Revenue	7,241,880	8,396,260	8,766,782	9,000,000	33,404,922	9,229,263	10,700,440	11,172,644	11,469,863	42,572,210	60,049,174
COS	1,627,172	1,716,317	(2,448,047)	1,800,000	2,695,443	1,845,853	2,140,088	2,234,529	2,293,973	8,514,442	12,009,835
Gross Profit	5,614,707	6,679,943	11,214,829	7,200,000	30,709,479	7,383,411	8,560,352	8,938,115	9,175,891	34,057,768	48,039,339
Sales & Marketing	3,673,123	3,812,193	4,153,174	4,000,000	15,638,490	3,968,583	4,601,189	4,748,374	4,874,692	18,192,838	21,342,664
Administration	626,012	926,118	1,078,743	1,275,000	3,905,873	1,015,219	1,177,048	1,228,991	1,261,685	4,682,943	5,469,516
Research/Development	515,410	680,281	558,865	800,000	2,554,556	922,926	1,070,044	1,117,264	1,089,637	4,199,872	5,169,270
Total OPEX	4,814,545	5,418,592	5,793,782	6,075,000	22,098,920	5,906,729	6,848,281	7,094,629	7,226,014	27,075,652	31,981,450
Operating Income	800,162	1,261,351	5,424,047	1,125,000	8,610,559	1,476,682	1,712,070	1,843,486	1,949,877	6,982,115	16,057,889
Other Expenses/(Income)	(25,701)	(30,622)	(48,116)	(50,000)	(150,000)	(154,433)	(150,000)	(150,000)	(150,000)	(600,000)	(600,000)
Earnings Before Income Taxes	825,863	1,291,973	5,472,156	1,175,000	8,764,999	1,626,682	1,862,070	1,993,486	2,099,877	7,582,115	16,657,889
Provision (Benefit) for Income Taxes	100,000	(19,200)	226,200	411,250	718,250	569,339	651,725	697,720	734,957	2,653,740	5,830,261
Net Income	725,863	1,311,173	5,245,956	763,750	8,046,742	1,057,343	1,210,346	1,295,766	1,364,920	4,928,375	10,827,628
Dilute Shares			17,961,227	17,961,227	18,051,033	18,141,288	18,231,995	18,323,155	18,186,868	18,692,376	
Diluted EPS			\$ 0.04	\$ 0.45	\$ 0.06	\$ 0.07	\$ 0.07	\$ 0.07	\$ 0.27	\$ 0.58	
<b>Year-over-year Growth</b>											
Net Revenue						27.4%	27.4%	27.4%	27.4%	27.4%	41.1%
Gross Profit						31.5%	28.2%	-20.3%	27.4%	10.9%	41.1%
Income From Operations						84.5%	35.7%	-66.0%	73.3%	-18.9%	130.0%
Net Income						45.7%	-7.7%	-75.3%	78.7%	-38.8%	119.7%
EPS									75.2%	-39.5%	113.8%
<b>100% Income Statement</b>	<b>1Q04</b>	<b>2Q04</b>	<b>3Q04</b>	<b>4Q04</b>	<b>2004E</b>	<b>1Q05</b>	<b>2Q05</b>	<b>3Q05</b>	<b>4Q05</b>	<b>2005E</b>	<b>2006E</b>
Net Revenue	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
COGS	22.5%	20.4%	-27.9%	20.0%	8.1%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
Gross Profit	77.5%	79.6%	127.9%	80.0%	91.9%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%
Sales & Marketing	50.7%	45.4%	47.4%	-44.4%	46.8%	43.0%	43.0%	42.5%	42.5%	42.7%	35.5%
Administration	8.6%	11.0%	12.3%	14.2%	11.7%	11.0%	11.0%	11.0%	11.0%	11.0%	9.1%
Research/Development	7.1%	8.1%	6.4%	8.9%	7.6%	10.0%	10.0%	9.5%	9.5%	9.9%	8.6%
Total OPEX	66.5%	64.5%	66.1%	67.5%	66.2%	64.0%	64.0%	63.5%	63.0%	63.6%	53.3%
Operating Income	11.0%	15.0%	61.9%	12.5%	25.8%	16.0%	16.0%	16.5%	17.0%	16.4%	26.7%
Other Expenses/(Income)	-0.4%	-0.4%	-0.5%	-0.6%	-0.5%	-1.6%	-1.4%	-1.3%	-1.3%	-1.4%	-1.0%
Earnings Before Income Taxes	11.4%	15.4%	62.4%	13.1%	26.2%	17.6%	17.4%	17.8%	18.3%	17.8%	27.7%
Provision (Benefit) for Income Taxes	12.1%	-1.5%	4.1%	35.0%	8.2%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Net Income	10.0%	15.6%	59.8%	8.5%	24.1%	11.5%	11.3%	11.6%	11.9%	11.6%	18.0%

## VALUATION

We believe that diagnostic companies as a whole trade as a multiple of revenues with high-growth companies' having forward revenue multiples of 5 to 10 times. Based on our current estimate—without the potential upside mentioned—Adeza would be valued at 6.7, and we are expecting long-term EPS growth of 25%, so we are rating the stock Outperform.

### Diagnostics Relative Valuations



## RISKS AND WARNING SIGNS

- **Market adoption rates.** We believe that most of the company's test volume today comes from hospitals testing patients in the "signs and symptoms" market. In order to achieve our forecasts, it would need to well penetrate the high-risk testing market driven out obstetricians' offices and to some extent the labor induction market.
- **Competition from new tests.** From the data and clinical papers that we have studied, we have not yet seen a highly competitive test. However, we know that a number of investigators continue to look at these medical indications, some of whom are focused on competing tests, other focused on tests that could be complementary if added to a test panel or algorithm.
- **Execution building revenue outside the U.S. and later new market segments.** Current sales outside the United States a low-single-digit percentage of revenues. In order to grow this meaningfully, we believe that the company will need to better manage and train its distributors, and in some markets either change the distributor or go direct. In our view, implementing these approaches is not trivial and entails execution risk. We believe that this same type of execution risk also exists in the new
- **Clinical and regulatory development of new indications.** For any new diagnostic testing application, the value of the test needs to be studied in clinical trials. These trials sometimes fail to achieve the necessary results, wither fro regulatory filing with organizations such as the FDA or for marketing to customers even if approval is granted. Moreover, even if positive clinical trial

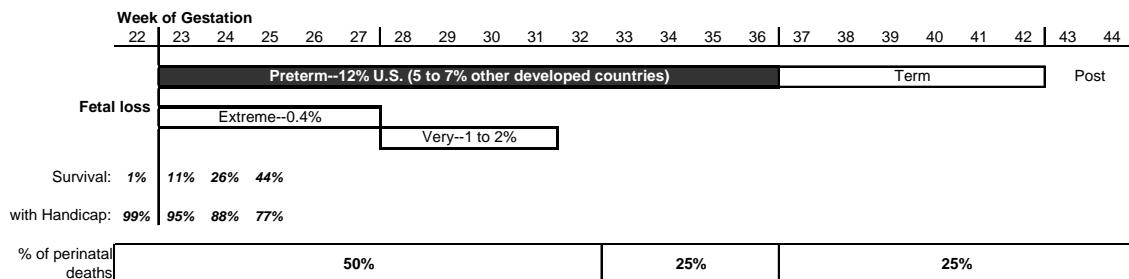
results are achieved, regulatory authorities such as the FDA may delay the process or interpret the data differently.

- **Intellectual property regarding the use of fFN.** The fFN patent estate and applications include a variety of patents and filings, including the use of fFN for different medical applications, as well as product patents. We believe that the current set of patents expires from 2007 to 2025. Depending on the market, different patents may be required. Moreover, patents may sometimes be challenged or blocking patents issued to other parties.

## PRETERM BIRTH

There are a number of causes for preterm birth, including smoking, hypertension and its complications, low socioeconomic status, multiple pregnancy, trauma and maternal physical abnormalities. Seventy-five percent of the perinatal deaths occur in preterm deliveries, and those delivered preterm who survive still face a high risk of later handicap.

Overview of Preterm Births and Gestation



Source: NEJM; JAMA; BMJ; Lancet; Pediatrics; ACOG; William Blair & Company, L.L.C. estimates

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Additional information is available upon request.

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<b>Coverage Universe</b>	<b>Percent</b>		
Outperform (Buy)	58	Outperform (Buy)	8
Market Perform (Hold)	36	Market Perform (Hold)	5
Underperform (Sell)	6	Underperform (Sell)	1

\*Percentage of companies in each rating category that are investment banking clients, defined as companies for which William Blair has received compensation for investment banking services within the past 12 months.

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