



## Nexia Announces 2004 Year-End Financial Results, Provides a Corporate Update and Announces Strategic Alternatives Process

Montreal, Quebec, Canada, December 14, 2004 – Nexia Biotechnologies Inc. (TSX:NXB) today announced its audited financial results for the fiscal year ended August 31, 2004 and reported revenues of \$1.6 million, a 20% increase over last year, and a net loss of \$8.5 million, which represents a 23% decrease compared to last year.

### Nexia's 2004 Highlights:

#### Protexia<sup>®</sup> Milestones Achieved

- **Broad Spectrum** - demonstrated effective *in vitro* binding and neutralization by Protexia<sup>®</sup> of a variety of nerve agents, including soman, sarin, VX and tabun.
- **Effective** - a series of *in vivo* challenge studies with nerve agents - demonstrated clearly that Protexia<sup>®</sup> was efficacious as a medical countermeasure in animal models.
- **Drug Dynamics** - pharmacokinetics (PK) studies showing that a single injection of Protexia<sup>®</sup> resulted in a sustained elevation of BChE levels for many hours in the bloodstream
- **FDA Provides Clarity** - Nexia is in discussions with regulators in the USA and Canada. Protexia<sup>®</sup>, like all drugs, must be proven to be safe and efficacious in order to be approved and sold. However, the special nature of counter-terrorist medicines, like Protexia<sup>®</sup>, uses a different regulatory mechanism within the US FDA. Termed the "Animal Efficacy Rule", this approved legislation permits the testing of efficacy (Phase II and III) in animal models because human efficacy trials are unethical. Phase I safety trials for Protexia<sup>®</sup> would be completed in humans in the traditional manner. These new rules compress the development timelines and are expected to accelerate the commercialization of Protexia<sup>®</sup>.
- **Protexia<sup>®</sup> production in the milk of our transgenic goat herd is being scaled-up as planned.** This year our expanding herd surpassed 200 g of Protexia<sup>®</sup> in their milk. This level of production is sufficient for both the ongoing pre-clinical data capture and the development of GMP purification processes for clinical grade Protexia<sup>®</sup>. This work is being carried out in conjunction with our CRO, MDS Pharma Services and a Contract Manufacturer. We are now actively breeding Protexia<sup>®</sup> genetics into our existing certified scrapie-free production herd to ensure that we meet the growing demand for Protexia<sup>®</sup>.

#### Corporate Highlights

- Under Nexia's current operating plan, management believes that the Company's current cash, cash equivalents, short-term investments and other current assets should be sufficient to finance its operations and capital needs until early fiscal 2006. However, in light of the inherent uncertainties associated with research and development programs, scale-up and commercialization of products, ability to enter into collaborative research and development agreements, the results of clinical testing, receipt of regulatory approval of certain products and ability to secure licensing agreements, management and the Board of Directors of Nexia have been exploring and considering a number of strategic alternatives that could be available to enable Nexia to fund its Protexia<sup>®</sup> program and to meet its other corporate objectives. The Company has signed confidentiality agreements, made management presentations and received inquiries. There can be no assurance that the process initiated by the Company will lead to any transaction. The Company cannot comment on whether any such transaction will represent values greater or lesser than those reflected in the current market capitalization of Nexia's shares. As a result of this process, the Company has incurred significant expenses.

- **Military partnership extended** - Nexia and Defence R&D Canada – Suffield (DRDC Suffield), Alberta signed a three year agreement to accelerate the development of Protexia<sup>®</sup>, a biotech antidote for the world's most dangerous chemical weapons (nerve agents). DRDC Suffield has allocated \$2 M to execute on three objectives at their facility to delineate the clinical utility of Protexia<sup>®</sup> against specific chemical weapons threats, including the prophylaxis medical indication, the post-exposure therapy indication and, finally, explore the “Antidote Combination Therapy” to define the best combination of existing nerve agent antidotes with Protexia<sup>®</sup>.
- **Extended Technology Portfolio** - Nexia signed an exclusive agreement with GTC Biotherapeutics to license its transgenic technology for Nexia to continue the development, manufacture, and sale of Protexia<sup>®</sup>. This licensing agreement includes access to GTC's beta casein promoter and an option to license its filtration technology, which has been demonstrated to have utility for initial purification of Protexia<sup>®</sup>.
- **Board Expertise in Pharmaceuticals Expanded** - consistent with a stronger pharmaceutical focus, Nexia welcomed Mr. Philip Blake, President & CEO, Bayer Canada to the Board of Directors. Mr. Blake brings a wealth of business expertise, particularly in the area of drug development and medical countermeasures. The Board of Directors would like to congratulate Mr. Russ on his promotion to Executive Vice-President & General Manager, International, Shire Pharmaceuticals Group, PLC. As this position is based in Europe, Mr. Russ has resigned his seat on our Board. We thank him for his service.
- Mr. Kenneth Johnson, acting Chief Operating Officer, has left the company. Nexia thanks him for the time and effort he contributed to the organization.

### **Protexia<sup>®</sup> Program Update**

This past year has been one of solid product development and business advancement for Protexia<sup>®</sup>. Nexia's proprietary version of human butyrylcholinesterase. We have made great inroads towards producing Protexia<sup>®</sup> and, we have achieved or surpassed all of the military technical milestones for the Protexia<sup>®</sup> program laid out in last year's Annual Report. Today, Nexia is the world's biggest producer of recombinant bioscavengers. Nexia's business model is based on our ability to produce Protexia<sup>®</sup> on a commercial scale. In the year ahead, we have three major objectives. We plan first to expand our manufacturing process with more transgenic goats and a larger purification system. Secondly, we will extend our dialogue with government regulators to show Protexia<sup>®</sup>'s performance in specific pre-clinical studies (toxicology, efficacy) prior to clinical studies, which are planned for the first half of 2006. Thirdly, our business development effort will find new healthcare uses for Protexia<sup>®</sup> to diversify our core military marketplace.

### **BioSteel<sup>®</sup> Program Update**

Nexia has decided to refocus BioSteel<sup>®</sup> towards biopolymer sales and to research specialized nano-scale fiber applications for spider silk and away from traditional fibers and yarns. This decision was prompted by the emerging interest in nanofibers and by the ongoing technical challenges of producing bulk, cost-competitive spider silk fibers with superior mechanical properties, especially strength. Nexia has suspended its outsourcing of spinning micron-sized fibers with Acordis SF and stopped its in-house spinning effort. Spinning of BioSteel<sup>®</sup> proteins into nanometer diameter fibers has been achieved and Nexia is now determining product requirements with various industrial or consumer groups. While management in collaboration with these groups investigates alternative uses of BioSteel<sup>®</sup>, future revenues associated with potential product applications can not be reasonably projected at this time. As a result, and in accordance with Nexia's accounting policies, Nexia has decided to write-down the intellectual property associated with BioSteel<sup>®</sup>.

## Financial review

The net loss for fiscal year 2004 ("2004") decreased by \$2.53 million to \$8.46 million from \$10.98 million for fiscal year 2003 ("2003"). The decrease in the overall loss was a result of expenditure reductions in net R&D and Administrative expenses of approximately \$2.25 million, and increases in total revenues of \$265,000. The overall reductions in spending were offset by an increase of \$265,000 in business development and a write down of intellectual property primarily related to BioSteel® of \$1.18 million. In 2003 a write-down of intellectual property of \$19,000 was recorded.

## Liquidity and capital resources

Nexia had cash, cash equivalents and short-term investments of \$11.23 million at August 31, 2004, a decrease of \$5.74 million from \$16.97 million as at August 31, 2003. In addition, Nexia had \$730,000 of investment tax credits recoverable and \$597,000 of other current assets. The major uses of funds during 2004 included \$5.68 million used for operations and \$167,000 invested in plant, equipment and intellectual property, compared to \$8.82 million and \$1.07 million respectively during 2003. Nexia's long-term debt repayments amounted to \$191,000 in 2004 compared to \$295,000 in 2003. The use of funds was offset by the receipt of \$221,000 relating to the exercise of employee stock options in 2004. As at December 13, 2004, the Company had 23,366,789 common shares outstanding and 1,690,800 stock options. Under Nexia's current operating plan, management believes that the Company's current cash, cash equivalents, short-term investments and other current assets should be sufficient to finance its operations and capital needs until early fiscal 2006.

## Conference Call and Web cast

Nexia will be holding a conference call on December 14, 2004 at 16:10, and this call will be broadcast live on the web at [www.nexiabiotech.com](http://www.nexiabiotech.com).

## About Nexia

Nexia develops and manufactures complex recombinant proteins in the milk of transgenic goats for medical applications. Nexia's strength is producing proteins that cannot be made commercially using other recombinant systems. The Company's lead product is Protexia®, which is funded by a tripartite development consortia consisting of Nexia, and the U.S. and Canadian militaries. Protexia® is being developed as a military prophylaxis and as a post-exposure therapy for civilian casualties of domestic terrorist attacks. Protexia® is recombinant human butyrylcholinesterase produced in the milk of Nexia's transgenic dairy goats. Protexia®'s capability as a medical countermeasure has been demonstrated *in vivo* to protect animals from multiple lethal doses of a broad spectrum of nerve agent chemical weapons. For more information, please visit Nexia's website at <http://www.nexiabiotech.com>.

## Forward-Looking Statement

Except for the historical information presented herein, matters discussed herein may constitute forward-looking statements that are subject to certain risks and uncertainties that could cause actual results to differ materially from any future results, performance or achievements expressed or implied by such statements. Statements that are not historical facts, including statements preceded by, followed by, or that include the words "believes"; "anticipates"; "intends"; "plans"; "expects"; "estimates"; or similar statements are forward-looking statements. Such statements reflect management's current views and are based on certain assumptions. Actual results could differ materially from those currently anticipated as a result of a number of factors, including risks and uncertainties discussed in Nexia's filings with Canadian regulatory authorities. An additional business risk associated with the Protexia® program relates to the fact that large purchases are expected to be made from a few customers. Changes in demand from these customers could significantly affect our program. There can be no assurance that such development efforts will succeed, that such products will receive required regulatory clearance or that, such products would ultimately achieve commercial success.

*Protexia and BioSteel are registered trademarks of Nexia Biotechnologies Inc. in Canada.*

## CONSOLIDATED BALANCE SHEETS

As at August 31 (audited)

	2004	2003
	\$	\$
<b>ASSETS</b>		
<b>Current</b>		
Cash and cash equivalents	604,470	552,383
Short-term investments	10,624,216	16,415,440
Investment tax credits recoverable	730,000	760,000
Receivables	264,251	649,450
Prepays and other assets	332,968	400,930
<b>Total current assets</b>	<b>12,555,905</b>	<b>18,778,203</b>
Property, plant and equipment	4,416,765	5,464,259
Intellectual property	282,149	1,434,190
	<b>17,254,819</b>	<b>25,676,652</b>
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
<b>Current</b>		
Accounts payable and accrued liabilities	1,177,893	879,199
Deferred revenues	—	341,000
Current portion of long-term debt	154,490	191,142
<b>Total current liabilities</b>	<b>1,332,383</b>	<b>1,411,341</b>
Long-term debt	—	154,490
	<b>1,332,383</b>	<b>1,565,831</b>
<b>Shareholders' equity</b>		
Capital stock	64,370,763	64,150,110
Contributed surplus	258,263	212,000
Deficit	(48,706,590)	(40,251,289)
<b>Total shareholders' equity</b>	<b>15,922,436</b>	<b>24,110,821</b>
	<b>17,254,819</b>	<b>25,676,652</b>

## CONSOLIDATED STATEMENTS OF OPERATIONS AND DEFICIT

Years ended August 31 (audited)

	2004 \$	2003 \$
<b>REVENUES</b>		
Contract revenues	1,155,239	712,000
Interest income	332,931	583,029
Miscellaneous revenues	72,085	—
	1,560,255	1,295,029
<b>EXPENSES</b>		
Research and development	5,299,412	7,121,506
Amortization of property, plant and equipment and intangible assets	903,094	1,121,468
Total research and development	6,202,506	8,242,974
Investment tax credits and other government assistance	(1,158,154)	(1,085,972)
Net research and development	5,044,352	7,157,002
Business development	2,076,258	1,810,865
Administrative	1,379,933	1,522,310
Amortization of property, plant and equipment	124,970	179,346
Loss on sale of property, plant and equipment	22,078	—
Foreign exchange loss	27,985	82,833
Interest on long-term debt	28,821	51,732
Restructuring costs	79,974	627,281
Write-down of property, plant and equipment	51,770	828,557
Write-down of intellectual property	1,179,415	19,103
<b>Total expenses</b>	<b>10,015,556</b>	<b>12,279,029</b>
<b>Net loss for the year</b>	<b>8,455,301</b>	<b>10,984,000</b>
Deficit, beginning of year	40,251,289	29,267,289
<b>Deficit, end of year</b>	<b>48,706,590</b>	<b>40,251,289</b>
<b>Basic and diluted loss per share</b>	<b>0.36</b>	<b>0.48</b>
<b>Weighted average number of shares outstanding during the year</b>	<b>23,220,360</b>	<b>23,059,015</b>

## CONSOLIDATED STATEMENTS OF CASH FLOWS

Years ended August 31 (audited)

	2004	2003
	\$	\$
<b>OPERATING ACTIVITIES</b>		
Net loss for the year	(8,455,301)	(10,984,000)
Add items not affecting cash:		
Amortization of property, plant and equipment	924,605	1,212,278
Amortization of intellectual property	103,459	88,536
Loss on sale of property, plant and equipment	22,078	—
Stock based compensation expense	46,263	—
Non-cash restructuring charges	—	122,941
Foreign exchange loss	4,708	33,155
Write-down of property, plant and equipment	51,770	828,557
Write-down of intellectual property	1,179,415	19,103
	(6,123,003)	(8,679,430)
Changes in non-cash working capital balances relating to operations	440,855	(137,899)
<b>Cash flows relating to operating activities</b>	<b>(5,682,148)</b>	<b>(8,817,329)</b>
<b>INVESTING ACTIVITIES</b>		
Acquisition of property, plant and equipment	(36,295)	(672,744)
Additions to intellectual property	(130,833)	(398,708)
Purchase of short-term investments	(10,624,216)	(19,166,204)
Maturity of short-term investments	16,415,440	26,798,875
Proceeds from disposition of fixed assets	85,336	—
<b>Cash flows relating to investing activities</b>	<b>5,709,432</b>	<b>6,561,219</b>
<b>FINANCING ACTIVITIES</b>		
Issuance of common shares	220,653	66,754
Repayment of long-term debt	(191,142)	(294,531)
<b>Cash flows relating to financing activities</b>	<b>29,511</b>	<b>(227,777)</b>
Effect of exchange rate changes on cash and cash equivalents	(4,708)	(33,155)
<b>Net change in cash and cash equivalents during the year</b>	<b>52,087</b>	<b>(2,517,042)</b>
Cash and cash equivalents, beginning of year	552,383	3,069,425
<b>Cash and cash equivalents, end of year</b>	<b>604,470</b>	<b>552,383</b>
<b>Supplemental cash flows information</b>		
Cash paid during the year for:		
Interest	28,821	51,732