U.S. SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549 FORM 10-QSB

/X/ Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the Period Ended June 30, 1997.

_

// Transition report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the Transition Period From _____ to

Commission file number 0-27436

TITAN PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter) DELAWARE 94-3171940

(State or Other Jurisdiction of Incorporation or Organization)

(I.R.S. Employer Identification No.)

400 OYSTER POINT BLVD., SUITE 505, SOUTH SAN FRANCISCO, CALIFORNIA 94080 (Address of Principal Executive Offices including zip code)

(415) 244-4990

(Issuer's Telephone Number, Including Area Code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes X No

State the number of shares outstanding of each of the issuer's common equity as of August 4, 1997: 13,046,102 shares of Common Stock outstanding, \$.001 par

Transitional Small Business Disclosure Format. Yes $\ \ \$ No X

TITAN PHARMACEUTICALS, INC. INDEX TO FORM 10-QSB

| PART I. | FINANCIAL INFORMATION | PAG |
|----------|--|------|
| | Item 1. Condensed Consolidated Financial Statements (unaudited) | |
| | Condensed Consolidated Balance Sheets June 30, 1997 and December 31, 1996 | 2 |
| | Condensed Consolidated Statements of Operations Three months and six months ended June 30, 1997 and 1996 and period from commencement of operations (July 25, 1991) to June 30, 1997 | 3 |
| | Condensed Consolidated Statements of Cash Flows Six months ended June 30, 1997 and 1996 and period from commencement of operations (July 25, 1991) to June 30, 1997 | 4 |
| | Notes to Condensed Consolidated Financial Statements - June 30, 1997 | 5 |
| | Item 2. Management's Discussion and Analysis or Plan of Operations | 8 |
| PART II. | OTHER INFORMATION | |
| | Item 6. Exhibits and Reports on Form 8-K | . 11 |
| SIGNATUR | ES | . 12 |

PART I. FINANCIAL INFORMATION

TITAN PHARMACEUTICALS, INC. (A DEVELOPMENT STAGE COMPANY) CONSOLIDATED BALANCE SHEETS

<TABLE> <CAPTION>

| | 1997 (Unaudited) | 1996 (Note A) |
|---|---------------------|------------------|
| <\$> | <c></c> | <c></c> |
| Assets | | |
| Current assets | | |
| Cash and cash equivalents | \$11,413,881 | \$ 1,376,532 |
| Short-term investments | 500,000 | 13,000,000 |
| Prepaid expenses and other current assets | 216,089 | 193,324 |
| Receivable from Ansan Pharmaceuticals, Inc. | 189,300 | 117,881 |
| Note receivable from Ansan Pharmaceuticals, Inc. | 1,000,000 | - |
| Total current assets | 13,319,270 | 14,687,737 |
| Furniture and equipment, net | 282,579 | 791,579 |
| Deferred financing costs | 50,000 | 96,349 |
| Investment in Ansan Pharmaceuticals, Inc. | 89,029 | 590,854 |
| Other assets | 47,266 | 199,830 |
| | \$13,788,144 | \$16,366,349 |
| | | |
| Liabilities and Stockholders' Equity | | |
| Current Liabilities | | |
| Accounts payable | \$ 1,113,473 | \$ 692,982 |
| License fee payable | 2,000,000 | |
| Accrued legal fees | 254,178 | 587,800 |
| Accrued sponsored research | 153,327 | 163,905 |
| Other accrued liabilities | 967,610 | 233,044 |
| Current portion of capital lease obligation | - | 265,462 |
| Current portion of technology financing - Ingenex, Inc. | | 570,711 |
| Total current liabilities | 4,488,588 | 2,513,904 |
| Noncurrent portion of capital lease obligation | | |
| | - | 481,676 |
| Noncurrent portion of technology financing - Ingenex, Inc. | - | 718,602 |
| Total liabilities Commitments | 4,488,588 | 3,714,182 |
| Minority interest - Series B preferred stock of Ingenex, Inc. | 1,241,032 | 1,241,032 |
| Guaranteed security value (Note 3) Stockholders' Equity: | 5,500,000 | _ |
| Common stock, at amounts paid in | 49,622,782 | 49,619,784 |
| Additional paid-in capital | 6,521,353 | |
| Deferred compensation | (544, 220) | (630, 100) |
| Deficit accumulated during the development stage | (53,041,391) | (44, 099, 902) |
| Total stockholders' equity | | 11,411,135 |
| | \$13,788,144 | |
| | | |

</TABLE>

Note A: The balance sheet at December 31, 1996 has been derived from the audited financial statements at that date but does not include all of the information and footnotes required by generally accepted accounting principles for complete financial statements.

See accompanying notes.

TITAN PHARMACEUTICALS, INC.
(A DEVELOPMENT STAGE COMPANY)
CONSOLIDATED STATEMENTS OF OPERATIONS
(UNAUDITED)

<TABLE> <CAPTION>

| | THREE MONTHS ENDED JUNE 30, | | SIX MONTHS ENDED JUNE 30, | | COMMENCEMENT OF OPERATIONS (JULY 25, 1991) TO | |
|--|-----------------------------|----------------|---------------------------|----------------|---|--|
| | 1996 | 1997 | 1996 | 1997 | JUNE 30, 1997 | |
| <s></s> | <c></c> | <c></c> | <c></c> | <c></c> | <c></c> | |
| Grant revenue | \$ - | \$ 111,483 | \$ 49,705 | \$ 147,745 | \$ 546,078 | |
| Costs and expenses: | | | | | | |
| Research and development | 1,522,090 | 2,643,240 | 2,349,988 | 4,817,975 | 32,398,368 | |
| Acquired in-process research and development | | | | | | |
| | - | - | - | 9,500,000 | 10,186,000 | |
| General and administrative | 1,054,79 | 3 1,626,973 | 1,975,986 | 2,963,891 | 14,792,237 | |
| Total costs and expenses | 2,576,883 | 3 4,270,213 | 4,325,974 | 17,281,866 | 57, 376, 605 | |
| Loss from operations | (2,576,88 | 3) (4,158,730) | (4,276,269) | (17, 134, 121) | (56, 830, 527) | |
| Other income (expense): | | | | | | |
| Gain on sale of technology and fixed assets | - | 8,513,884 | - | 8,513,884 | 8,513,884 | |
| Equity in loss of Ansan, Inc. | (176, 81 | 3) (221, 785) | (355, 489) | (501,824) | (1, 957, 910) | |

PERIOD FROM

| Interest income Interest expense | 263,326 (195,077) | 147,378 (63,670) | 339, 748 (1, 818, 206) | 319, 313 (138, 741) | 1,490,055 (4,301,743) |
|---|----------------------|---------------------|---------------------------|------------------------|--------------------------|
| Other expense - net | (108, 564) | 8,375,807 | (1,833,947) | 8,192,632 | 3,744,286 |
| Income (loss) before minority interest Minority interest in losses of subsidiaries | (2, 685, 447) – | 4,217,077 - | (6,110,216) 9,853 | (8,941,489) - | (53,086,241) 44,850 |
| Net Income (loss) | \$ (2,685,447) | \$ 4,217,077 | \$ (6, 100, 363) | \$ (8,941,489) | \$ (53,041,391) |
| | | | | | |
| Net income (loss) per share | \$ (0.25) | \$ 0.32 | \$ (1.18) | | |
| | | | | | |
| Shares used in per share computation | 10,757,940 | 13, 157, 382 | 9,791,050 | 12,971,902 | |
| | | | | | |

</TABLE>

See accompanying notes.

TITAN PHARMACEUTICALS, INC. (A DEVELOPMENT STAGE COMPANY) CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)

<TABLE>
<CAPTION>

| | | ENDED JUNE 30, | PERIOD FROM COMMENCEMENT OF OPERATIONS (JULY 25, 1991) TO |
|---|-----------------------------|----------------|--|
| | 1996 | 1997 | JUNE 30, 1997 |
| <\$> | <c></c> | <c></c> | <c></c> |
| CASH FLOWS FROM OPERATING ACTIVITIES | | | |
| Net loss Adjustments to reconcile net loss to net cash used in operating activities | \$ (6,100,363) | \$ (8,941,489) | \$ (53,041,391) |
| Amortization and depreciation | 222,417 | 245,576 | 1,308,767 |
| Issuance of common stock to acquire technology | 222,417 | 5,500,000 | |
| Accrued license fee to acquire technology | _ | 2,000,000 | |
| Loss (gain) on sale of equipment | _ | (218, 654) | (218,654) |
| Accretion of discount on indebtedness | 1,407,579 | (210, 654) | 2,290,910 |
| Equity in loss of Ansan, Inc. | 355,489 | | 1,957,911 |
| equity in loss of Ansan, inc. Other | | | |
| Issuance of common stock to acquire | (9, 626) | _ | (35, 653) |
| issuance of common stock to acquire minority interest of Theracell, Inc. Changes in operating assets and liabilities: | - | - | 686,000 |
| Prepaid expenses and other current assets | (38, 902) | (22, 765) | (216, 089) |
| Receivable - Ansan, Inc. | (24, 660) | | |
| Other assets | (28, 108) | | |
| Accounts payable | 66, 980 | 420 491 | 1,347,663 |
| Other accrued liabilities | (1, 124, 651) | 390,366 | 1,865,531 |
| Net cash used in operating activities | (5, 273, 845) | (43,505) | (36, 796, 536) |
| 01011 TT 0110 TD 011 THEFTON TO 10TH THEFT | | | |
| CASH FLOWS FROM INVESTING ACTIVITIES | (62 641) | /E1 710) | (1 104 077) |
| Purchase of furniture and equipment | (63, 641) (10, 261, 502) | (51,718) | (1,124,077) |
| Purchases of short-term investments | (10, 261, 502) | (100,000) | (59, 782, 493) |
| Proceeds from sales of short-term investments | 3,750,000 | | |
| Issuance of debenture to Ansan Pharmaceuticals, Inc. Effect of deconsolidation of Ansan, Inc. | _ | (1,000,000) | (1,000,000) (135,934) |
| Bilect of deconsolidation of Ansan, inc. | | | |
| Net cash provided by (used in) investing activities | (6,575,143) | 11,448,282 | (2,760,011) |
| CASH FLOWS FROM FINANCING ACTIVITIES | | | |
| Issuance of common stock | 16,357,887 | 2,998 | 30,028,760 |
| Offering costs | (2, 483) | | · · · - |
| Deferred financing costs | · · - · | 46,349 | (763, 899) |
| Issuance of preferred stock | _ | · - | 17,601,443 |
| Proceeds from notes payable and advances payable | _ | _ | 2,681,500 |
| Repayment of notes payable | _ | _ | (1,441,500) |
| Proceeds for Ansan bridge financing | _ | _ | 1,425,000 |
| Proceeds from Titan and Ingenex bridge financing | _ | _ | 5,250,000 |
| Repayment of Titan and Ingenex bridge financing | (5, 250, 000) | | (5, 250, 000) |
| Proceeds from capital lease | - | _ | 658,206 |
| Payments of principal under capital lease obligation | (108, 887) | | |
| Proceeds from Ingenex, Inc. technology financing | - | - | 2,000,000 |
| Principal payments on Ingenex, Inc. technology financing Increase in minority interest from issuances of | (238, 155) | (1,289,313) | (2,000,000) |
| | | | |

| preferred stock by Ingenex, Inc. Issuance of common stock by subsidiaries | - 9,853 | - | 1,241,032 173,652 |
|--|------------------------|-------------------------|----------------------|
| Net cash provided by (used in) financing activities | 10,768,215 | (1,367,428) | 50,970,428 |
| Net increase (decrease) in cash and cash equivalents Cash and cash equivalents, beginning of period | (880, 773) 947, 805 | 10,037,349 1,376,532 | 11,413,881 - |
| Cash and cash equivalents, end of period | \$ 67,032 | \$ 11,413,881 | \$ 11,413,881 |
| | | | |

</TABLE>

See accompanying notes.

4

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

THE COMPANY AND ITS SEVERAL DEVELOPMENT STAGE SUBSIDIARIES

Titan Pharmaceuticals, Inc. (the "Company") was incorporated in February 1992 in the State of Delaware. It is the holding company for several development stage biotechnology companies ("the Operating Companies"). The development stage companies, which rely significantly on third parties to conduct sponsored research, are Ansan Pharmaceuticals, Inc. ("Ansan"), Ingenex, Inc. ("Ingenex"), Theracell, Inc. ("Theracell"), ProNeura, Inc. ("ProNeura"), and Trilex Pharmaceuticals, Inc., formerly Ascalon, Inc. ("Trilex").

ANSAN PHARMACEUTICALS, INC.

Ansan was incorporated in November 1992 to engage in the development of novel treatment of cancer and other disorders characterized by abnormal cellular growth and differentiation. It was a majority-owned consolidated subsidiary until August 1995. In August 1995, Ansan completed an initial public offering of its securities. Such offering reduced the Company's ownership in Ansan from approximately 95% to approximately 43%. Since August 1995, the Company has accounted for its investment in Ansan using the equity method. At June 30, 1997, the Company owned 43% of Ansan. See Note 4.

INGENEX, INC.

Ingenex was incorporated in July 1991 and reincorporated in June 1992. It is engaged in the development of gene-based therapeutics and the discovery of medically important genes for the treatment of cancer and viral diseases. On June 4, 1997, Ingenex sold its GSX System, a research technology, and certain fixed assets for cash and the assumption of certain lease liabilities (see Note 5). At June 30, 1997, the Company owned 81% of Ingenex.

THERACELL, INC.

Theracell was incorporated in November 1992 to engage in the development of novel treatments for various neurologic disorders through the transplantation of neural cells and neuron-like cells directly into the brain. At June 30, 1997, the Company owned 100% of Theracell.

PRONEURA, INC.

ProNeura was incorporated in October 1995 to engage in the development of cost effective, long term treatment solutions to neurological and psychiatric disorders through an implantable drug delivery system. At June 30, 1997, the Company owned 79% of ProNeura.

TRILEX PHARMACEUTICALS, INC.

Trilex was incorporated in May 1996 to engage in research and development of cancer therapeutic vaccines utilizing anti-idiotypic antibody technology. At June 30, 1997, the Company owned 100% of Trilex.

BASIS OF PRESENTATION

The accompanying unaudited consolidated financial statements have been prepared in accordance with generally accepted accounting principles for interim financial information and with the instructions to Form 10-QSB and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by generally accepted accounting principles for complete financial statements. In the opinion of management, all adjustments (consisting of normal recurring accruals) considered necessary for a fair presentation have been included. Operating results for the six month period ended June 30, 1997 are not necessarily indicative of the results that may be expected for the year ended December 31, 1997. These financials should be read in conjunction with the audited consolidated financial statements and footnotes

5

thereto included in the Titan Pharmaceuticals, Inc. annual report on Form 10-KSB for the year ended December 31, 1996.

PER SHARE DATA

For purposes of computing net loss per share data in the six months ended June 30, 1996, the net loss has been increased by a \$5,431,871 deemed dividend (see Note 2). Per share data is computed using the weighted average number of

common and common equivalent shares outstanding. Common equivalent shares include the dilutive effect of outstanding stock options calculated using the Treasury Stock Method. Such shares are excluded from the computation in periods in which the Company incurred a net loss as their effect is antidilutive.

In February 1997, the Financial Accounting Standards Board issued Statement No. 128, "Earnings Per Share", which is required to be adopted on December 31, 1997. At that time, the Company will be required to change the method currently used to compute earnings per share and to restate all prior periods. Under the new requirements for calculating primary earnings per share, the dilutive effect of stock options will be excluded. The impact is not expected to result in a change in primary earnings per share for the three and six months ended June 30, 1996 and 1997.

2. STOCKHOLDERS' EQUITY

DEEMED DIVIDEND

The holders of Series A and Series B preferred stock received common stock in January 1996 with an aggregate fair value (at the \$5.00 per share value of the initial public offering) (the "IPO") which exceeded by \$5,431,871 the cost of their initial investment in Series A and Series B preferred stock. This amount has been deemed to be the equivalent of a preferred stock dividend. The Company recorded the deemed dividend at the time of the conversion by offsetting charges and credits to additional paid in capital, without any effect on total stockholders' equity (net capital deficiency). There was no effect on net loss from the mandatory conversion. However, the amount did increase the loss applicable to common stock, in the calculation of net loss per share in the 1996 period.

3. COLLABORATIVE AGREEMENTS

HOECHST MARION ROUSSEL, INC. AGREEMENT

In January 1997, the Company entered into an exclusive license agreement (the "HMR Agreement") with Hoechst Marion Roussel, Inc. ("Hoechst"). The license agreement gives the Company a worldwide license to Hoechst's patent rights and know-how related to a chemical compound known as Iloperidone, including the ability to develop, use, sublicense, manufacture and sell products and processes claimed in the patent rights. Terms of the HMR Agreement required the Company to pay Hoechst an upfront license fee of \$9,500,000, payable as follows: (i) \$2,000,000 in cash on January 20, 1997; (ii) the issuance of \$5,500,000 of common stock (594,595 shares) on January 20, 1997; (iii) and \$2,000,000 in cash on July 18, 1997. As a result of this transaction, the Company incurred a charge for acquired in-process research and development of \$9,500,000. During the period from October 1997 through January 1999, the Company shall be obligated to pay to Hoechst the difference between \$5,500,000 and the net proceeds received by Hoechst upon sale of the above mentioned common stock. Accordingly, this has been recorded as guaranteed security value in the accompanying balance sheet. Any cash paid under the guarantee agreement will be charged against this balance, and the remaining balance, if any, will be transferred to common stock. The Company's current stock price is significantly depressed, indicating a potential liability at August 4, 1997 of \$3.98 million related to the Hoechst shares. In addition, the Company is required to make additional benchmark payments as specific milestones are met. Upon commercialization of the product, the license agreement provides that the Company will pay royalties based on net sales.

6

4. NOTE RECEIVABLE FROM ANSAN PHARMACEUTICALS, INC. AND RELATED TRANSACTIONS

In March 1997, Titan and Ansan entered into an agreement for financing pursuant to which Titan advanced Ansan \$1,000,000 in return for a debenture which was convertible at any time prior to June 21, 1997 into 333,333 shares of Ansan common stock (the "Debenture"). The Company did not convert the Debenture. The Debenture bears interest at prime plus 2% and is due in April 1998. In July 1997, the Company entered into a sublicense agreement with Ansan pursuant to which it acquired an exclusive worldwide license to Ansan's butyrate compounds for anti-cancer and certain other indications in exchange for the Company's payment of a 2% royalty on net sales and the Company's transfer to Ansan of all of its equity holdings in Ansan. The sublicense is a component of an Agreement and Plan of Reorganization and Merger between Ansan and Discovery Laboratories, Inc., a privately-held development stage biotechnology company, pursuant to which Discovery will be merged with and into Ansan (the "Merger") The closing of the Merger is subject to customary closing conditions, including approval by the stockholders of Ansan and Discovery. Upon completion of the Merger, Ansan will repay approximately \$1,200,000 of outstanding indebtedness to the Company, including the Debenture. The sublicense is subject to consummation of the Merger.

5. INGENEX SALE OF GSX SYSTEM

On June 4, 1997, Ingenex sold its GSX System, a research technology, and certain fixed assets to Pharmaceutical Product Development, Inc. for \$8,722,500 in cash and the assumption of certain capital lease liabilities.

7

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OR PLAN OF OPERATION

The following discussion contains certain forward-looking statements, within the meaning of the "safe harbor" provisions of the Private Securities ${\cal S}$

Litigation Reform Act of 1995, the attainment of which involves various risks and uncertainties. Forward-looking statements may be identified by the use of forward-looking terminology such as "may", "will", "expect", "believe", "estimate", "anticipate", "continue" or similar terms, variations of those terms or the negative of those terms. The Company's actual results may differ materially from those described in these forward-looking statements due to, among other factors, the results of ongoing research and development activities and preclinical testing, the results of clinical trials and the availability of additional financing through corporate partnering arrangements or otherwise.

RESULTS OF OPERATIONS

The Company is a development stage pharmaceutical company, with product development programs in the areas of cancer and central nervous system disorders. Since its inception, the Company's efforts have been principally devoted to research and development, including human clinical trials, as well as to acquiring licenses and technologies, raising capital and securing patent protection. The Company has had approximately \$546,000 in grant revenue, and has incurred an accumulated deficit through June 30, 1997 of approximately \$53,000,000. These losses have resulted from expenditures for research and development as well as from general and administrative activities including legal and professional activities, and are expected to continue for the foreseeable future.

Total revenues for the three months ended June 30, 1997 (the "1997 quarter") were approximately \$111,000, and total revenues for the six months ended June 30, 1997 (the "1997 six months") were approximately \$148,000. There were no revenues for the three months ended June 30, 1996 (the "1996 quarter") and approximately \$50,000 for the six months ended June 30, 1996 (the "1996 six months").

Research and development expenses for the 1997 quarter were approximately \$2,643,000, an increase of \$1,121,000 or 74% from the 1996 quarter. For the 1997 six months, research and development expenses were \$4,818,000 as compared to \$2,350,000 for the 1996 six months, an increase of 105%. The increases for both the 1997 quarter and the 1997 six months were the result of the increased number and activity of the Company's product development programs, particularly related to one of its later-stage products, Iloperidone, which is ready to commence Phase III clinical trials, and human clinical testing of the Company's cancer immunotherapeutic products, CeaVac, TriGem and TriAB, which are expected to be in Phase II/III clinical trials by year-end 1997. The increases in research and development expense were also attributable to sponsored research and contract manufacturing for Spheramine, the Company's cell-therapy product for Parkinsons's disease, which is now in late-stage pre-clinical testing Acquired in-process research and development of \$9,500,000 in the 1997 six months reflects an upfront license fee paid by the Company under the HMR Agreement with Hoechst, by which the Company acquired exclusive worldwide rights to Iloperidone. A portion of this \$9,500,000 license fee, \$5,500,000, was a non-cash charge.

General and administrative expenses for the 1997 quarter were approximately \$1,627,000 compared with \$1,055,000 for the 1996 quarter, an increase of 54%. For the 1997 six months, general and administrative expenses were \$2,964,000 as compared to \$1,976,000 for the 1996 six months, an increase of 50%. The increases in general and administrative expense are primarily due to the addition to the Company's product portfolio of Iloperidone and the cancer therapeutic vaccines. These increased expenses have been in the areas of legal fees, patent prosecution and medical, marketing and financial consulting fees. As a percentage of total operating expenses, general and administrative expenses have decreased from 1996 to 1997. General and administrative expenses for the 1997 quarter and the 1997 six months were, in each period, equal to approximately 38% of the Company's total operating expenses, while general and administrative expenses in 1996 were equal to approximately 41% and 46%, respectively, of the Company's total operating expenses during the same periods.

8

The Company has taken several steps which should help reduce certain operating expenses, including, the sale in June 1997 of the GSX technology which will reduce the Company's annual payroll expenses by approximately \$1,100,000. See discussion below and Note 5 of Notes to Financial Statements. The Company has also taken steps to reduce its interest expenses due to repayment of certain debt obligations as outlined below.

As a result of the foregoing expenses, the Company incurred an operating loss of approximately \$4,159,000 during the 1997 quarter compared with \$2,577,000 for the 1996 quarter. This increase is primarily due to the increased number and activity of the Company's clinical development programs. For the 1997 six months, the operating loss was approximately \$17,134,000 compared with \$4,276,000 for the 1996 six months. The 1997 six months operating loss includes a non-recurring charge of \$9,500,000 for the Iloperidone license, of which \$5,500,000 is a non-cash charge, \$2,000,000 was paid in January and \$2,000,000 was paid in July 1997. The Company expects to continue to incur substantial research and development costs in the future as a result of funding (i) ongoing research and development programs, (ii) manufacturing of products for use in clinical trials, (iii) patent and regulatory related expenses, and (iv) preclinical and clinical testing of the products. Accordingly, the Company expects to incur increasing operating losses for the foreseeable future.

Other income for the 1997 quarter includes a gain of approximately \$8,514,000 from the sale of GSX, a research technology developed by Ingenex,

and certain fixed assets. Interest income was approximately \$147,000 during the 1997 quarter as compared to \$263,000 during the 1996 quarter. For the 1997 six months, interest income was \$319,000 compared with \$340,000 for the 1996 six months. Interest expense decreased to approximately \$139,000 during the 1997 six months from \$1,818,000 for the 1996 six months. Approximately \$1,408,000 of the 1996 expense reflects a non-recurring charge due to the repayment in January 1996 of notes issued in a bridge financing. Approximately \$950,000 of the non-recurring charge represents the unamortized portion of the \$1,200,000 debt discount, and \$458,000 represents debt issuance costs. Interest expense for the 1997 quarter was approximately \$64,000 as compared to \$195,000 for the 1996 quarter.

Other income for the 1997 six months also includes approximately \$502,000 of losses in the Company's share of Ansan's losses compared to \$355,000 for the 1996 six months. The Company's share of Ansan's losses for the 1997 quarter and the 1996 quarter were \$222,000 and \$177,000, respectively.

LIQUIDITY AND SOURCES OF CAPITAL

In January 1997, the Company entered into the HMR Agreement with Hoechst, effective as of December 31, 1996, pursuant to which it acquired an exclusive worldwide license to the antipsychotic agent Iloperidone. Terms of the HMR Agreement required the Company to pay Hoechst an upfront license fee of \$9,500,000, payable as follows: (i) \$2,000,000 in cash on January 20, 1997; (ii) the issuance of \$5,500,000 of common stock (594,595 shares at \$9.25 per share) on January 20, 1997 (the "Fee Shares"); and (iii) \$2,000,000 in cash on July 18, 1997. During the period from October 1997 through January 1999, the Company shall be obligated to pay to Hoechst the difference between \$5,500,000 and the net proceeds received by Hoechst upon the sale of the Fee Shares, if such net proceeds are less then \$5,500,000. See Note 3 of Notes to Financial Statements. The HMR Agreement also provides for future late stage milestone payments to Hoechst, based upon successful development of Iloperidone, as well as royalty payments on net sales, if any.

At present, the Company does not have the funds necessary to complete the clinical development of Iloperidone and is currently pursuing several financing alternatives including corporate partnering arrangements and off balance sheet financing to complete development of Iloperidone. There can be no assurance that any such financing will be available on acceptable terms, if at all. If adequate funds are not available on acceptable terms, the Company may be required to delay development of Iloperidone.

In March 1997, Titan and Ansan entered into an agreement for financing pursuant to which Titan advanced Ansan \$1,000,000 in return for a debenture which was convertible at any time prior to June 21, 1997 into 333,333 shares of Ansan common stock (the "Debenture"). The Company did not convert the Debenture. The Debenture bears interest at prime plus 2% and is due in April 1998. In July 1997, the Company entered

9

into a sublicense agreement with Ansan pursuant to which it acquired an exclusive worldwide license to Ansan's butyrate compounds for anti-cancer and certain other indications. The sublicense is a component of an Agreement and Plan of Reorganization and Merger between Ansan and Discovery Laboratories, Inc. ("Discovery"), a privately-held development stage biotechnology company, pursuant to which Discovery will be merged with and into Ansan (the "Merger"). Upon completion of the Merger, Ansan will repay approximately \$1,200,000 of outstanding indebtedness to the Company, including the Debenture. Titan will pay Ansan a 2% royalty on net sales of such butyrate compounds. The sublicense is subject to consummation of the Merger. The closing of the Merger is subject to customary closing conditions, including approval by the stockholders of Ansan and Discovery.

On June 4, 1997, Ingenex completed the sale of its GSX System, a research technology, and certain fixed assets for \$8,722,500 in cash and the assumption of certain lease liabilities. Following the close of this transaction, the company utilized approximately \$1,134,000 of proceeds to repay certain debt obligations.

The Operating Companies have entered into various agreements with research institutions, universities, and other entities for the performance of research and development activities and for the acquisition of licenses related to those activities. The aggregate commitment the Company has under these agreements, including minimum license payments, for the next 12 months is approximately \$2,746,000. Certain of the licenses provide for the payment of royalties by the Company on future product sales, if any. In addition, in order to maintain license and other rights during product development, the Company must comply with various conditions including the payment of patent related costs and, in the case of ProNeura, obtaining additional equity investments by specified dates.

The Company expects to continue to incur substantial additional operating losses from costs related to continuation and expansion of research and development, clinical trials, and increased administrative and fund raising activities over at least the next several years. The Company believes that its current cash, cash equivalents, and short-term investments will be sufficient to sustain operations and maintain the Company's rights under current licensing arrangements through approximately the middle of 1998. The Company will be required to seek additional financing to continue its operations beyond that period. However, the Company's capital requirements may change depending on numerous factors including, but not limited to, the progress of the Company's research and development programs, the results of clinical studies, the timing of regulatory approvals, technological advances,

determinations as to the commercial potential of the Company's products, and the status of competitive products. In addition, expenditures will be dependent on the establishment of collaborative relationships with other companies, the availability of financing, and other factors. In any event, the Company anticipates that it will require substantial additional financing in the future for continued operations. There can be no assurance as to the availability or terms of any required additional financing, when and if

10

PART II

Item 6. EXHIBITS AND REPORTS ON FORM 8-K

(a) Exhibits

10.25 Agreement for sale and purchase of assets between the Registrant and Pharmaceuticals Product Development, Inc. dated June 4, 1997

10.26 Sublicense Agreement between the Registrant and Ansan Pharmaceuticals, Inc. dated July 15, 1997

11.1 Statement of Computation of Net Income (Loss) Per Share

27.1 Financial Data Schedule

(b) Reports on Form 8-K

A current report on Form 8-K was filed with the Securities and Exchange Commission on May 28, 1997, June 9, 1997 and July 18, 1997.

11

SIGNATURES

In accordance with the requirements of the Exchange Act, the registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

TITAN PHARMACEUTICALS, INC.

August 5, 1997

By: /s/Louis R. Bucalo

Louis R. Bucalo, M.D., President and Chief Executive Officer

August 5, 1997

By: /s/Robert E. Farrell

Robert E. Farrell, Chief Financial Officer

AGREEMENT FOR SALE AND PURCHASE OF ASSETS

THIS AGREEMENT FOR SALE AND PURCHASE OF ASSETS ("Agreement") is made and entered into effective as of this 28th day of May, 1997, by and among INGENEX, INC., a Delaware corporation whose principal place of business is 1505 O'Brien Drive, Suite B, Menlo Park, California 94025 ("INGENEX"), SUBSIDIARY NO. 3, INC., a North Carolina corporation whose principal place of business is 3151 17th Street Extension, Wilmington, North Carolina 28412 ("SUBSIDIARY"), and PHARMACEUTICAL PRODUCT DEVELOPMENT, INC., a North Carolina corporation whose principal place of business is 3151 17th Street Extension, Wilmington, North Carolina 28412 ("PPD").

RECITALS

WHEREAS, INGENEX is the current owner of the GSX System, a genomics platform technology used to identify genes based upon their functional roles in a biological or disease process and to pinpoint key steps in a disease pathway for therapeutic intervention (the "GSX System"); and

WHEREAS, INGENEX desires to sell to SUBSIDIARY and SUBSIDIARY desires to purchase the GSX System and all tangible and intangible assets, properties, benefits and rights owned, used or useful in the operation of the business related to the GSX System (the business and operations related to the GSX System being referred to herein as the "Business"), upon and subject to the terms and conditions set forth hereinafter.

AGREEMENT

NOW, THEREFORE, in consideration of the premises and the mutual promises and covenants herein contained, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties, intending to be legally bound, hereby agree as follows:

ARTICLE 1 ASSETS PURCHASED

- 1.1 ACQUIRED ASSETS. Upon and subject to the terms and conditions set forth in this Agreement, on the Closing Date (as hereinafter defined) INGENEX shall sell, assign, transfer and convey to SUBSIDIARY and SUBSIDIARY shall purchase and acquire from INGENEX the GSX System and all tangible and intangible properties, assets, benefits and rights owned, licensed (subject to the limitations of such licenses) or used by or useful to INGENEX in the operation of the GSX System and the Business (the "Acquired Assets"). The "Acquired Assets" specifically include the following assets of INGENEX as the same shall exist on the Closing Date:
- 1.1.1 The machinery, equipment, furniture, tools and fixtures of INGENEX, used specifically in connection with the Business, wherever located, and all warranties and claims pertaining thereto, as listed on SCHEDULE 1.1.1 attached hereto (the "Equipment").
- 1.1.2 The inventory, laboratory supplies and materials, and all other tangible personal property of INGENEX of whatever sort or description used specifically in connection with the Business (the "Inventory").
- 1.1.3 All of INGENEX's rights, title and interest in and to and benefits under the License Agreements used specifically in connection with the Business listed on SCHEDULE 1.1.3 attached hereto (the "License Agreements"). License Agreements shall mean and include all of the following items: (i) all licenses, sublicenses and other agreements as to which INGENEX is a party and pursuant to which any person is authorized to use any of the Intellectual Property (as hereinafter defined), and (ii) all licenses, sublicenses and other agreements as to which INGENEX is a party and pursuant to which INGENEX is authorized to use any third party patents, trademarks or copyrights, including software, which are incorporated in, are, or form a part of any INGENEX product or service that is material to the Business.
 - 1.1.4 All of INGENEX's rights, title and interest in and to and

benefits under that certain Lease dated March 6, 1996 between Menlo Business Park and Patrician Associates, Inc. and INGENEX (the "Lease") and relating to the real property (the "Premises") described in the Lease, and all of INGENEX's leasehold improvements located on the Premises and any appurtenances thereto, all as listed on SCHEDULE 1.1.4 attached hereto (the "Lease"). Notwithstanding the foregoing sentence, INGENEX shall retain ownership of the "clean room", which shall be removed from the Premises by INGENEX at its sole expense within 120 days after the Closing. INGENEX shall be responsible and pay for any damage to the Premises resulting from the removal of the clean room.

- 1.1.5 All patents, patent applications, copyrights, trademarks, service marks and trade names, inventions, products, trade secrets, proof of principle, product ideas, works of authorship, processes, copyrightable or patentable materials, biological material (including cell lines, antibodies, c-DNAs, antisense nucleotides, proteins, vectors, new chemical entities, media, reagents and related materials) and any other proprietary information or intellectual property (whether or not registered) presently owned, licensed or assigned to INGENEX used in the operation of the GSX System or the Business (the "Intellectual Property"). SCHEDULE 1.1.5 lists all patents and patent applications and all registered and unregistered trademarks, trade names and service marks, registered and unregistered copyrights, and mask works that are included in the Intellectual Property, including the jurisdictions in which each such Intellectual Property right has been issued or registered or in which any application for such issuance and registration has been filed.
- 1.1.6 All of INGENEX's rights, title and interest in and to and benefits under the contracts, permits, agreements, purchase orders and leases, whether oral or written, used specifically in connection with the Business, as listed on SCHEDULE 1.1.6 attached hereto (the "Contracts").
- 1.1.7 All prepaid expenses incurred in the ordinary course of business as listed on SCHEDULE 1.1.7 attached hereto (the "Prepaid Expenses").

- 1.1.8 Copies of all books, records, client lists, correspondence and files, business forms, personnel records (to the extent permitted to be transferred by applicable law) and other information and data in whatever form recorded pertaining to the Business (the "Records").
- 1.1.9 All claims, refunds, causes of action, choses in action, rights of recovery, warranty rights, rights of offset and rights of recoupment of INGENEX relating to the operation of the GSX System and the Business (the "Deposits").
- 1.1.10 All other intangible assets owned, used or useful in the operation of the GSX System and the Business, together with all goodwill and going concern value relating to the GSX System, the Business and the other Acquired Assets (the "Goodwill").
- 1.2 TRANSFER OF ACQUIRED ASSETS. On the Closing Date (as hereinafter defined), the Acquired Assets shall be conveyed to SUBSIDIARY by appropriate transfer documents as follows: (i) title to the Equipment, Inventory, Prepaid Expenses, Records, Deposits and Goodwill shall be conveyed pursuant to a Bill of Sale and Assignment in the form attached hereto as EXHIBIT 1.2A, (ii) title to the License Agreements shall be conveyed pursuant to an Assignment and Assumption of License Agreements in the form attached hereto as EXHIBIT 1.2B, (iii) title to the Contracts shall be conveyed pursuant to an Assignment and Assumption of Contracts in the form attached as EXHIBIT 1.2C, (iv) title to any patents or patent applications shall be conveyed pursuant to an Assignment of Patents and Patent Applications in the form attached hereto as EXHIBIT 1.2D, or pursuant to such other transfer documents reasonably necessary to convey the same to SUBSIDIARY, (v) title to the Intellectual Property (other than patents and patent applications) presently owned by or assigned to INGENEX shall be conveyed pursuant to an Intellectual Property Assignment in the form attached hereto as EXHIBIT 1.2E, and (vi) title to the Lease shall be conveyed pursuant to an Assignment, Assumption and Amendment of Lease in the form attached hereto as EXHIBIT 1.2F.
- 1.3 TITLE TO ACQUIRED ASSETS. On the Closing Date, INGENEX shall deliver to SUBSIDIARY good title to the Acquired Assets free and clear of any mortgages,

pledges, claims, liens, conditional sales or other agreements, leases, encumbrances, rights, contracts or other charges of any nature (hereinafter collectively referred to as "Liens and Encumbrances") other than such Liens and Encumbrances that have been granted under or attach to the Acquired Assets with respect to any of the Assumed Liabilities (as hereinafter defined) as set forth in SCHEDULE 1.3 (the "Accepted Liens and Encumbrances").

1.4 POSSESSION OF ACQUIRED ASSETS. INGENEX shall deliver possession of the Acquired Assets to SUBSIDIARY at the Premises on the Closing Date. Possession of the Premises shall be delivered to SUBSIDIARY on the Closing Date free and clear of all claims, or rights of use or possession other than those claims or rights created by SUBSIDIARY or PPD or as set forth in the Lease.

ARTICLE 2 PURCHASE PRICE AND PAYMENT

2.1 PURCHASE PRICE. The purchase price for the Acquired Assets (the "Purchase Price") shall be Eight Million Seven Hundred Twenty-Two Thousand Five Hundred Dollars

- (\$8,722,500), which shall be paid by SUBSIDIARY to INGENEX at Closing by confirmed wire transfer of funds on the Closing Date to the account designated by INGENEX on SCHEDULE 2.1.
- 2.2 LIMITED ASSUMPTION OF LIABILITIES BY SUBSIDIARY. On the Closing Date, INGENEX shall assign to SUBSIDIARY and SUBSIDIARY shall assume, indemnify and hold harmless INGENEX from any obligations under the License Agreements, the Contracts and the Lease to the extent related to performance due on or after the Closing Date (collectively, the "Assumed Liabilities").
- 2.3 EXCLUDED LIABILITIES. Except for the Assumed Liabilities, SUBSIDIARY and PPD do not assume and shall not assume any debt, obligation, agreement, contract, lease or any other liability whatsoever of INGENEX of any kind or nature, absolute or contingent, known or unknown, incurred or arising out of transactions or operation of the GSX System or the Business or of any other business of INGENEX prior to the Closing Date (collectively, the "Excluded Liabilities"). Without limiting the generality of the immediately preceding sentence, the Excluded Liabilities to be retained by INGENEX shall include the following:
- 2.3.1 All liabilities and obligations of INGENEX to any third party arising from the breach by INGENEX, prior to the Closing Date, of any contract, including, without limitation, the License Agreements, the Contracts and the Lease;
- 2.3.2 All liabilities and obligations of INGENEX for any federal, state and local income, profits, franchise, capital stock, property, sales, use, payroll, occupation, excise or other taxes, fees, duties, deficiencies, assessments, withholdings or other governmental charges of any nature (including interest, penalties or other additions thereto) (hereinafter, "Taxes"), except to the extent such liabilities and obligations arise on or after the Closing Date in connection with the operation of the Business by SUBSIDIARY after the Closing Date;
- 2.3.3 All liabilities and obligations of INGENEX in connection with the violation of any foreign, federal, state or local law or regulation, except to the extent such liabilities and obligations arise on or after the Closing Date in connection with the operation of the Business by SUBSIDIARY after the Closing Date;
- 2.3.4 All liabilities and obligations of INGENEX to its collaborative scientific partners, customers, sponsors or other third parties as a result of any act or omission or arising under any warranties (express or implied) provided by INGENEX for goods and/or services provided prior to the Closing Date;
- 2.3.5 All liabilities and obligations of INGENEX, except to the extent such liabilities and obligations arise on or after the Closing Date in connection with the operation of the Business by SUBSIDIARY after the Closing

Date for accrued (i) pension benefits, (ii) severance or termination benefits and (iii) health, life and disability insurance premiums of the employees and retirees of INGENEX;

2.3.6 INGENEX's liabilities to its employees for accrued payroll, vacation and sick leave arising prior to the Closing Date; and

4

2.3.7 All other liabilities and obligations arising out of or connected with any employee benefit plan (as defined in Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended ("ERISA")), maintained at any time by INGENEX or to which INGENEX ever made any contributions.

ARTICLE 3 CLOSING DATE AND PLACE

Provided that all conditions precedent to Closing shall have been satisfied or waived by the appropriate party, the closing of the transactions contemplated by this Agreement (the "Closing") shall occur on or before May 30, 1997 (the "Closing Date"), or on such earlier or later date as may be set by mutual agreement of the parties. The Closing shall occur at such place, time and location and in such manner as is mutually acceptable to the parties. Notwithstanding anything herein to the contrary, if the Closing has not occurred on or before May 30, 1997 (except that if any of the conditions set forth in Articles 8 or 9 Section 8.8.7, 8.8.12, 8.8.13, 8.8.14, 9.6.6 or 9.6.9 have not been satisfied by May 30, 1997, then each party shall have until June 6, 1997 to satisfy such conditions), then either INGENEX or PPD or SUBSIDIARY shall have the right to terminate this Agreement, each by providing notice to the other, whereupon, subject to the following, this Agreement shall become null and void and of no further force or effect. Notwithstanding the termination of this Agreement, such termination shall be without prejudice to a party's rights and remedies as a result of any breach or default on the part of another party.

ARTICLE 4 ADDITIONAL AGREEMENTS

- 4.1 EMPLOYMENT AGREEMENTS WITH CERTAIN KEY EMPLOYEES. Effective as of the Closing Date, SUBSIDIARY shall enter into employment agreements with each of Mark E. Furth, Ph.D. and Tatyana Holzmayer, Ph.D. in the form of EXHIBITS 4.1A and 4.1B, respectively.
- 4.2 CONSULTING AGREEMENTS WITH CERTAIN KEY PERSONS. Effective as of the Closing Date, INGENEX shall amend its existing Consulting Agreements dated May 20, 1992 between INGENEX (formerly Pharm-Gen Systems, Ltd.) and each of Igor Roninson, Ph.D. and Richard L. Davidson, Ph.D. and its Scientific Advisory and Consulting Agreement dated January 1, 1994 with Eli Gilboa, Ph.D., in each case in form and substance satisfactory to each of the parties thereto and to PPD and SUBSIDIARY. Each of such amendments shall: (i) prohibit the consultant from providing consulting services to INGENEX after the Closing with respect to the GSX System or the Business, and (ii) provide that any consulting services provided to PPD or SUBSIDIARY with respect to the GSX System or the Business following the Closing shall not be considered violations of any of the provisions of such Consulting Agreements. Effective as of the Closing Date, INGENEX shall terminate all consulting or similar agreements (oral or written) with Andrei Gudkov, Ph.D. Effective as of the Closing Date, SUBSIDIARY shall enter into new consulting agreements with each of Andrei Gudkov, Ph.D. and Eli Gilboa, Ph.D. in the form of EXHIBITS 4.2A and 4.2B, respectively. SUBSIDIARY shall have the right (but not obligation) to negotiate and enter into new consulting agreements with each of Igor Roninson, Ph.D. and Richard L. Davidson, Ph.D. with respect to the GSX System and the Business upon such terms and conditions which are mutually acceptable to the parties.

5

4.3 OTHER EMPLOYEES. SUBSIDIARY shall have the right to employ and shall employ each of the employees of INGENEX identified on SCHEDULE 4.3 effective as of the Closing Date; provided, however, that this Agreement shall not be construed to create any contractual employment rights in any of such employees

hired by SUBSIDIARY other than as employees terminable at any time at will. As a condition of such employment by SUBSIDIARY, each employee must execute a standard Proprietary Information and Inventions Agreement with and for the benefit of SUBSIDIARY.

- 4.4 NEW LEASE WITH PHOENIX CAPITAL. With respect to the equipment listed on SCHEDULE 4.4, effective on or before the Closing Date, INGENEX shall have caused such equipment to be released from and no longer subject to any of the provisions of that certain Master Equipment Lease dated February 15, 1994 (the "Current Lease") between Phoenix Leasing Incorporated ("Phoenix") and Titan Pharmaceuticals, Inc. ("TITAN") and that certain Sublease and Acknowledgment of Assignment dated February 15, 1994 between TITAN, INGENEX, Geneic Sciences, Inc., Theracell, Inc. and Ansan, Inc. The form and substance of such releases shall be reasonably satisfactory to PPD. SUBSIDIARY shall negotiate in good faith for a new equipment lease with Phoenix, which equipment lease shall be upon such terms and conditions reasonably satisfactory to SUBSIDIARY and PPD. PPD and SUBSIDIARY acknowledge that a new lease with terms and conditions substantially similar to the Current Lease with respect to such equipment shall be deemed reasonably satisfactory.
- 4.5 GUARANTY OF LEASE BY PPD. If required by the landlord as a condition to assignment of the Lease to SUBSIDIARY and to the release of TITAN from any obligations with respect to the Lease, PPD agrees to guarantee the payment of rent under the Lease. Any such guaranty required of PPD shall be upon such terms and conditions as shall be reasonably satisfactory to PPD. PPD acknowledges that a guarantee substantially similar to that executed by TITAN in connection with the Current Lease shall be deemed reasonably satisfactory.
- 4.6 RELEASE OF GSE LICENSE AGREEMENT FROM ABERLYN CAPITAL AGREEMENT. Effective prior to or as of the Closing Date, INGENEX shall cause that certain GSE Exclusive License Agreement dated as of May 6, 1992 between The Board of Trustees of the University of Illinois and INGENEX (formerly Pharm-Gen Systems, Ltd.) to be released from and no longer subject to the provisions of the License Assignment and License Agreement between INGENEX and Aberlyn Capital Management Limited Partnership dated January 31, 1995 (as then in effect). The form and substance of such release shall be reasonably satisfactory to PPD.
- 4.7 TERMINATION OF CERTAIN EMPLOYMENT AGREEMENTS. Effective as of the Closing Date, INGENEX shall terminate the Employment Agreement between INGENEX and Mark E. Furth, Ph.D. dated July 25, 1995 and shall release Mark E. Furth, Ph.D. from any further liabilities or obligations thereunder, including specifically any restrictive covenants related to the Business. Effective as of the Closing Date, INGENEX shall terminate the Employment Agreement between INGENEX and Tatyana Holzmayer, Ph.D. dated August 9, 1993 and shall release Tatyana Holzmayer, Ph.D. from any further liabilities or obligations thereunder, including specifically any restrictive covenants related to the Business.
- 4.8 RELEASE FROM PROPRIETARY INFORMATION AGREEMENTS. Effective as of the Closing Date, INGENEX shall release each of Mark E. Furth, Ph.D. and Tatyana Holzmayer, Ph.D. from their respective Proprietary Information and Inventions Agreement, dated July 25, 1995 and

- August 9, 1993, respectively, to the extent that such agreements relate to the GSX System, the Business or the Acquired Assets. Effective as of the Closing Date, INGENEX shall release each employee listed on SCHEDULE 4.3 who is hired by either PPD or SUBSIDIARY from their respective Proprietary Information and Inventions Agreements to the extent that such agreements relate to the GSX System, the Business or the Acquired Assets. All such releases hereunder shall be in the form of EXHIBIT 4.8 attached hereto.
- 4.9 ALLOCATION OF PURCHASE PRICE. By mutual agreement of the parties, the total consideration payable hereunder for the Acquired Assets (which comprises the Purchase Price and the value of all Assumed Liabilities) shall be allocated among the various Acquired Assets pursuant to SCHEDULE 4.9 to be prepared by the parties and attached as of Closing. The allocations will be made by SUBSIDIARY in a manner reasonably acceptable to INGENEX and consistent with the residual method of accounting. SUBSIDIARY and INGENEX agree that the allocation set forth in SCHEDULE 4.9 shall be used by them for all tax purposes, including, but not limited to, reporting pursuant to Section 1060 of the Code. In preparing

and filing IRS Form 8594 ("Asset Acquisition Statement Under Section 1060"), SUBSIDIARY and INGENEX shall report that the allocation of consideration set forth herein and the fair market value of the assets to which such consideration is allocated is the same. Prior to filing Form 8594 with respect to the transaction described herein, INGENEX and SUBSIDIARY shall provide to one another a true and correct copy of the Form 8594 which each intends to file with respect to this transaction.

- 4.10 BULK SALES LAWS. PPD and SUBSIDIARY hereby waive compliance by INGENEX with the provisions of any applicable state bulk transfer statutes and INGENEX covenants and agrees to pay and discharge when due all claims of creditors asserted against either PPD or SUBSIDIARY or any of their affiliates by reason of any failure of INGENEX to so comply, and to indemnify PPD and SUBSIDIARY and its affiliates fully in respect thereof, which indemnity shall survive Closing.
- 4.11 ADJUSTMENTS. Rent, real estate taxes, water, sewer, and other current lienable charges, if any, relating to the Premises shall be apportioned as of the Closing Date on the basis of the fiscal year of the taxing body or the period covered by such charges. INGENEX shall be responsible for any benefit assessments assessed or levied against the Premises prior to the Closing Date. PPD shall be responsible for any benefit assessments assessed or levied against the Premises on or after the Closing Date. The security deposit of Twenty-Seven Thousand Two Hundred Twelve and 40/100 Dollars (\$27,212.40) that INGENEX has paid to the landlord pursuant to the Lease shall be treated as a prepaid item for which SUBSIDIARY shall reimburse INGENEX at Closing in exchange for assignment to SUBSIDIARY of all of INGENEX's rights and interests in the security deposit.
- 4.12 REALTY TRANSFER TAX. INGENEX shall pay any realty transfer taxes required to be paid as a result of the conveyance of the Lease to SUBSIDIARY.
- 4.13 NON-COMPETITION AGREEMENT OF INGENEX. At Closing, INGENEX shall execute a certain non-competition agreement (the "Non-Competition Agreement") in the form attached hereto as EXHIBIT 4.13.
- 4.14 POST-CLOSING ACCESS TO RECORDS. Following the Closing Date, INGENEX shall provide PPD or SUBSIDIARY during normal business hours reasonable access to and shall permit

7

either of them to make reasonable numbers of copies of financial records and other information related to operation of the GSX System and the Business prior to the Closing (to the extent that such records or other information exists) for the purpose of preparing audited financial statements covering any period prior to the Closing Date and for such other purposes as PPD or SUBSIDIARY may reasonably request from time to time. Following the Closing Date, PPD and SUBSIDIARY shall provide INGENEX during normal business hours reasonable access to and shall permit INGENEX to make reasonable numbers of copies of the Records for such purposes as INGENEX may reasonably request from time to time. Any copies or other activities undertaken by a party pursuant to this Section 4.14 shall be done at such party's sole cost and expense.

4.15 POST-CLOSING ACCESS TO CERTAIN PERSONNEL. For a period of up to twelve (12) months following the Closing Date, PPD and SUBSIDIARY shall permit INGENEX to use the services of certain technical personnel of SUBSIDIARY upon providing reasonable advance notice to, and obtaining the consent of, an officer of SUBSIDIARY. Such services shall not relate to the GSX System or the Business and shall not interfere in any manner with SUBSIDIARY's operation of its business. In consideration for any services provided hereunder, INGENEX shall pay to SUBSIDIARY fees based upon an effective hourly rate of \$75.00. Such fees shall be paid within fifteen (15) business days after receipt of an invoice therefor. Notwithstanding the foregoing, SUBSIDIARY agrees that Mark E. Furth, Ph.D., and such other personnel of SUBSIDIARY as he may designate, shall prepare, on behalf of INGENEX, certain due diligence reports required under the License Agreements without payment of any amount therefor by INGENEX to SUBSIDIARY or any other party.

In order to induce PPD and SUBSIDIARY to consummate the transactions referred to in this Agreement, INGENEX represents, warrants and covenants to and with PPD and SUBSIDIARY as follows:

- 5.1 ORGANIZATION AND GOOD STANDING. INGENEX is a corporation which is duly organized and validly existing and in good standing under the laws of the State of Delaware, and has the requisite power and authority to own, license or lease the Acquired Assets and to conduct its business as now conducted. INGENEX is duly qualified to do business and is in good standing as a foreign corporation in each jurisdiction where the character of the properties it owns, licenses or leases or the nature of its business makes such qualification necessary except where the failure to so qualify would not have a material adverse effect on the Business. SCHEDULE 5.1 lists all the states where INGENEX is so qualified.
- 5.2 POWER AND AUTHORITY. INGENEX has full right, power and authority to enter into this Agreement and each of the Transaction Documents (as hereinafter defined) to which it is a party and to perform its obligations under this Agreement and the Transaction Documents. The execution and delivery of this Agreement and the Transaction Documents and the performance by INGENEX of its obligations hereunder and thereunder have been duly authorized by all requisite corporate action, and no further action or approval is required in order that this Agreement shall be binding upon it and enforceable against it in accordance with its terms, subject only to bankruptcy, insolvency, reorganization, moratorium and other laws or equitable principles affecting creditors' rights generally. INGENEX represents and warrants that no

8

approval of the shareholders of INGENEX is required by Delaware Law, its Certificate of Incorporation or Bylaws in connection with the consummation of the transactions contemplated by this Agreement. For purposes of this Agreement, "Transaction Documents" means each of the agreements, documents and instruments referenced in this Agreement to be executed and delivered by INGENEX, PPD and/or SUBSIDIARY, as appropriate.

- 5.3 LITIGATION. There are no actions, suits, proceedings or investigations pending or, to the knowledge of INGENEX, threatened, at law or in equity, before or by any foreign, federal, state, municipal or other governmental instrumentality which involve any judgment or liability, against INGENEX, in each case as it relates to the Business, or which may result in any material adverse change in the Business or the Acquired Assets. INGENEX is not, with respect to the Business, subject to or in violation of any order, writ, injunction or decree of any court or foreign, federal, state, municipal or other governmental department, commission, board, bureau or instrumentality.
- 5.4 COMPLIANCE WITH CONTRACTS. INGENEX has delivered to SUBSIDIARY true and complete copies of the Contracts and the License Agreements, together with all amendments and supplements thereto and modifications thereof. Each of the License Agreements, each of the Contracts and the Lease is valid, in full force and effect and binding upon INGENEX and, to the knowledge of INGENEX, all other parties thereto in accordance with its terms. INGENEX is not in default under, nor to the knowledge of INGENEX has any event occurred which, with a lapse of time or notice or both, could result in a default under any of the Contracts, the License Agreements, the Lease or under any outstanding note, indenture, mortgage, instrument, contract or agreement relating to the Business to which INGENEX is a party or by which the Premises or the Acquired Assets are bound, except as disclosed in SCHEDULE 5.4. INGENEX is not and will not be at Closing in violation of any provision of its Certificate of Incorporation or Bylaws. The execution, delivery and performance of this Agreement, except as disclosed in SCHEDULE 5.4, and the Transaction Documents and consummation of the transactions contemplated hereby and thereby will not (i) violate, conflict with or result in a breach of or constitute a default (or an event which, with notice or lapse of time or both, would constitute a default) under the Contracts, the License Agreements, the Lease or any outstanding note, indenture, mortgage, instrument, contract or agreement relating to the Business to which INGENEX is a party or by which the Premises or the Acquired Assets are bound, (ii) result in the creation of any lien, security interest, charge or encumbrance upon or have a material adverse effect on the Acquired Assets or the Premises, or (iii) violate any of the terms, conditions or provisions of the Certificate of

Incorporation or Bylaws of INGENEX. INGENEX has not received any advance payments or other consideration with respect to any of the Contracts relating to services which have not been or will not be performed prior to the Closing.

5.5 COMPLIANCE WITH LAWS. INGENEX conducts the Business in compliance with all laws, statutes, regulations, rules, ordinances or orders applicable to INGENEX or to the operation of the Business except where the failure to so comply would not have a material adverse effect on the Business. The execution, delivery and performance of this Agreement and the Transaction Documents and consummation of the transactions contemplated hereby and thereby will not result in the termination, modification or acceleration of any order, writ, injunction, decree, or any statute, rule or regulation, applicable to the Business, the Acquired Assets or the Premises.

- 5.6 TAX RETURNS AND TAXES. INGENEX will have filed on or before the Closing Date or shall file on a timely basis with all appropriate governmental agencies (whether foreign, federal, state or local) all returns required to be filed by it with respect to Taxes, all of which will have been prepared accurately and in conformity with all laws and regulations applicable thereto. To INGENEX'S knowledge, no Tax returns of INGENEX have been examined or are under examination by any foreign, federal, state or local agency with examination responsibility thereover for the fiscal years presently open under applicable statutes of limitation, and no assessments or deficiencies for such fiscal years of INGENEX have been made or are now owning. There are in effect no waivers of the applicable statutes of limitation for Taxes for any period. There are in effect no agreements for an extension of time with respect to the filing of any Tax return of INGENEX.
- 5.7 FINANCIAL STATEMENTS. Prior to Closing INGENEX shall deliver to PPD and SUBSIDIARY audited balance sheets, income statements, and statements of retained earnings and cash flows for the fiscal years ending December 31, 1994, December 31, 1995 and December 31, 1996. Said statements, together with an unaudited interim balance sheet (the "Balance Sheet") and related statements of income for the period ended March 31, 1997 are collectively hereinafter called the "Financial Statements". Each of the Financial Statements shall be in accordance with the books and records of INGENEX and taken as a whole present fully and fairly the financial position of INGENEX at the dates indicated, and the results of operations for the periods indicated, and (except for the March 31, 1997 Financial Statements) have been prepared in accordance with generally accepted accounting principles, consistently applied.
- 5.8 ABSENCE OF UNDISCLOSED LIABILITIES. There are no debts, liabilities or obligations either accrued, absolute, contingent or otherwise with respect to the Business except (i) those arising in the ordinary course of business, and (ii) those which are incurred in accordance with this Agreement.
- 5.9 PERMITS, LICENSES AND CONSENTS. Attached hereto as SCHEDULE 5.9 is a list of: (i) all material governmental permits, licenses, registrations, approvals and other authorizations that to the best of the knowledge of INGENEX are required for the operation of the Business as presently operated and that if not obtained would have a material adverse effect on the Business (the "Permits"), and (ii) governmental and non-governmental third-party consents which INGENEX knows are required to consummate fully the transactions contemplated by this Agreement. All such Permits are valid and outstanding, INGENEX has duly complied, in all material respects, with all of the terms and conditions of each Permit held by it, and no Permit has ever been revoked, canceled or suspended or the subject of any investigation or proceeding for the suspension, revocation or cancellation thereof. INGENEX will use its best efforts to determine which filings are required to be made and which consents are required to be obtained prior to the Closing Date in connection with the execution and delivery of this Agreement and the consummation of the transactions contemplated hereby and to timely file such filings and to timely obtain all such consents.
- 5.10 TITLE TO ACQUIRED ASSETS. On the Closing Date, INGENEX will own and have good title to all of the Acquired Assets (including without limitation the Lease and the leasehold improvements on the Premises), free and clear of any Liens and Encumbrances other than the Accepted Liens and Encumbrances.

- 5.11 CONDITION OF ACQUIRED ASSETS. Except as disclosed on SCHEDULE 5.11 all Equipment and Inventory of INGENEX and all pieces of equipment listed on SCHEDULE 4.4 are currently operational, free and clear of known defects, and are suitable for use in the manner in which they are currently employed in the Business, and on the Closing Date shall be in the same condition as on the date of this Agreement, normal wear and tear excepted.
- 5.12 USE OF PREMISES. INGENEX has no knowledge of any condition on the Premises which would unreasonably interfere with the use of the Premises by SUBSIDIARY in the conduct of the Business. To the knowledge of INGENEX, there are no zoning restrictions or other restrictions upon the use of the Premises, which, either individually or in the aggregate, adversely affect the use or construction of the Premises and improvements located thereon as presently used or constructed. To the knowledge of INGENEX, none of the Premises and improvements located thereon, or the use, occupancy, operation or maintenance thereof, or any substance, material or condition thereon, is in violation of any restriction, covenant, or laws (including, without limitation, any building, zoning, health, fire, safety or other ordinance, code or regulation) the violation of which would have a material adverse effect on the Business, the Premises or the Acquired Assets. No notice has been served upon INGENEX or upon the Premises claiming violation of any restriction, covenant, or laws (including, without limitation, any building, zoning, health, fire, safety or other ordinance, code or regulation), or requiring or calling attention to the need for any work, repairs, construction, alterations, or installation in connection with the Premises or improvements thereon or claiming any monies due with respect thereto.
- 5.13 LEASE. INGENEX has delivered to SUBSIDIARY true and complete copies of the Lease, together with all amendments and supplements thereto and modifications thereof. The Lease is valid and effective and enforceable by INGENEX in accordance with its terms. INGENEX has the right of quiet enjoyment of all property leased to it under the Lease for the full term of the Lease and any renewal options thereto (provided such renewal options, if any, are properly exercised), and, to the knowledge of INGENEX, no leasehold interest of INGENEX under the Lease is subject to or subordinate to any security interest, lease, encumbrance or other burden, except as set forth on SCHEDULE 5.13. There is no material default (or event which, with the passage of time or notice, would constitute a material default) or claim of material default known by INGENEX to be pending or asserted against INGENEX by any party to the Lease. INGENEX further represents to SUBSIDIARY that INGENEX has no ownership of any real estate or leasehold interest in real estate other than the Lease.
- 5.14 LICENSE AGREEMENTS. Except as set forth in SCHEDULE 5.14, INGENEX represents, warrants and covenants that:
- 5.14.1 The License Agreements are currently subsisting and have not been adjudged invalid or unenforceable by any court or tribunal. Each of the License Agreements is valid and enforceable and INGENEX is not aware of any claim by any third party that any of the License Agreements is invalid or unenforceable.
- 5.14.2 Subject to the rights reserved under the License Agreements, INGENEX is the sole and exclusive owner of the right, title and interest in and to the License Agreements free and clear of any Liens and Encumbrances other than the Accepted Liens and Encumbrances.

- 5.14.3 All licenses and other agreements applicable to the License Agreements are the valid and binding obligations of all of the parties thereto and are enforceable against each of such parties in accordance with their respective terms; provided that, with respect to any such parties other than INGENEX, such representation and warranty is made to the knowledge of INGENEX. INGENEX has not entered into, and will not enter into prior to the Closing, any currently subsisting or future license agreements with respect to any of the License Agreements without PPD's prior written consent.
 - 5.14.4 Subject to the rights reserved under the License Agreements,

INGENEX has and shall continue to have through the Closing the exclusive right to make, sell, practice and use all the inventions set forth in License Agreements (other than uses by others pursuant to agreements set forth in SCHEDULE 5.14 hereto) throughout the countries of issue, free and clear of any and all Liens and Encumbrances or other restrictions on INGENEX's right to protect or enforce any of the License Agreements against any third party.

- 5.14.5 No effective financing statement, security agreement, assignment, license or transfer or notice of any of the foregoing or of any lien covering any of the License Agreements is on file or record in any office or agency of any foreign country or any intergovernmental organization, or any other governmental or regulatory authority, agency or recording office, and INGENEX has no knowledge of any such filing.
- Agreements or INGENEX's use, sale or practice thereof does or may violate the rights of any third party. There has been no decision adverse to INGENEX's claim of exclusive ownership rights (subject to the rights reserved under the License Agreements) in the License Agreements or exclusive rights to use, sell and practice the License Agreements in the United States (and all possessions and territories thereof) or, to the knowledge of INGENEX, after good faith inquiry with the appropriate officers and legal counsel of INGENEX without further investigation, in any other country or to keep and maintain the License Agreements in full force and effect and no proceeding involving said rights is to the knowledge of INGENEX, after good faith inquiry with the appropriate officers and legal counsel of INGENEX without further investigation, threatened or pending before or in any patent or similar office or agency of the United States, of any state or foreign country, or of any intergovernmental organization, or in any court or tribunal.
- 5.14.7 To the knowledge of INGENEX, after good faith inquiry with the appropriate officers and legal counsel of INGENEX without further investigation, there is no event which does or reasonably could materially adversely affect the value of any of the License Agreements, or its ability to transfer any of the License Agreements, or the rights and remedies of INGENEX in relation to any of the License Agreements.
- 5.14.8 INGENEX has at all times in the past used all statutory and other appropriate symbols, notices or legends of ownership of the patents licensed under the License Agreements, except where the failure to so use would not have a material adverse effect on the material rights available with respect to the License Agreements under all applicable laws.
- 5.14.9 INGENEX has not and will not prior to the Closing abandon or dedicate to the public any of the patents licensed under the License Agreements, or do any act of a character that tends to cause or contribute to the abandonment or dedication to the public of any of the patents

12

licensed under the License Agreements, or do or omit to do any act of a character that tends to negate, hinder, prevent, restrain or retard such abandonment, dedication to the public, loss, or other adverse effect.

- 5.14.10 To the knowledge of INGENEX, after good faith inquiry with the appropriate officers and legal counsel of INGENEX without further investigation, there is at present no material infringement or unauthorized or other improper use of the patents or rights licensed under the License Agreements inconsistent with INGENEX's rights in the License Agreements.
- 5.14.11 INGENEX has secured from all consultants to and employees of INGENEX who contributed in a material manner to the creation or development of any proprietary or potentially valuable rights related to the License Agreements thereunder valid written assignments of the rights to such contributions that are material to the Business of INGENEX and which INGENEX does not already own by operation of law (subject to the limitations set forth in any such consulting agreements).
- 5.15 INTELLECTUAL PROPERTY. With respect to the Intellectual Property and except as set forth on SCHEDULE 5.15, INGENEX represents, warrants and covenants

that:

- 5.15.1 INGENEX owns or is licensed or otherwise possesses legally enforceable rights to use all the Intellectual Property that is used in the Business as currently conducted by INGENEX.
- 5.15.2 To the knowledge of INGENEX, there is no material unauthorized use, disclosure, infringement or misappropriation by any third party (including employees and former employees of INGENEX) of any of the Intellectual Property rights. INGENEX has not entered into any agreement to indemnify any other person against any charge of infringement of any the Intellectual Property, other than standard indemnification provisions contained in contracts arising in the ordinary course of business and in the License Agreements.
- 5.15.3 To the knowledge of INGENEX: (i) all patents, registered trademarks, service marks and copyrights which are included in the Intellectual Property and held by INGENEX are valid and subsisting, and (ii) the marketing, licensing or sale of the Intellectual Property does not infringe any patent, trademark, service mark, copyright, trade secret or other proprietary right of any third party. INGENEX has not brought any action, suit or proceeding for infringement of the Intellectual Property or breach of any license or agreement involving the Intellectual Property against any third party.
- 5.15.4 INGENEX has secured from all consultants to and employees of INGENEX who contributed in a material manner to the creation or development of the Intellectual Property valid written assignments of the rights to such contributions that are material to the Business of INGENEX and which INGENEX does not already own by operation of law (subject to the limitations set forth in any such consulting agreements).
- 5.15.5 All use, disclosure or lawful appropriation of any of the Intellectual Property owned by INGENEX and licensed to a third party has been pursuant to the terms of a written agreement between INGENEX and such third party. All use, disclosure or lawful

13

appropriation of the Intellectual Property not owned by INGENEX and licensed from a third party has been pursuant to the terms of a written agreement between INGENEX and the owner of the Intellectual Property, or is otherwise lawful.

- 5.16 SUFFICIENCY OF ASSETS. The Acquired Assets constitute all of the assets and properties used by INGENEX in the Business during the past six (6) months, except for Inventory which has been consumed or has been disposed of in the ordinary course of business. There is no significant asset used or required by INGENEX in the conduct of the Business (as heretofore conducted) which is not either owned by INGENEX or licensed or leased to it and listed in one of the Schedules attached hereto.
- 5.17 PENSION PLANS. Each of the Retirement Plans (as hereinafter defined) has been operated in all material respects in conformity with applicable plan documents, the Code, applicable regulations thereunder and ERISA and has met all reporting requirements thereunder in all material respects. "Retirement Plans" means any employee pension benefit plan (including, without limitation, any multi-employer pension plan) as defined in Section 3(2) of ERISA or under any other state or federal statute regulating pension plans which INGENEX has maintained, participated in or made contributions to on behalf of any of its employees.
- 5.18 CAFETERIA AND WELFARE BENEFIT PLANS. Each program operated by INGENEX and purporting to provide for the exclusion from income by INGENEX's employees of amounts pursuant to Code Section 125 (and each other program relating thereto) has been operated in all material respects in conformity with applicable plan documents, the Code, applicable regulations thereunder and ERISA and has met all reporting requirements thereunder in all material respects. All "employee welfare benefit plans" (as such term is defined in ERISA) heretofore operated by INGENEX or any Related Party have been operated in all material respects in conformity with applicable plan documents, the Code, applicable regulations thereunder and ERISA and has met all reporting requirements thereunder.

- 5.19 LABOR RELATIONS. The employees of INGENEX have not in the past and are not presently represented by a union or any other agent or representative and INGENEX is not a party to a collective bargaining agreement with its employees. There have been no attempts by a union or other representative to organize the employees of INGENEX.
- 5.20 EMPLOYMENT MATTERS. SCHEDULE 5.20 attached hereto sets forth for the employees of INGENEX identified on SCHEDULE 4.3, the names, positions, dates of hire, and weekly salaries or hourly wages, of such employees as of the date hereof, together with the dates of their last pay increases and the amount of bonuses and description of agreements or arrangements for commissions and other compensation or benefits to be paid or provided to any of such persons including, without limitation vacation, sick leave, medical, dental, health insurance or other similar plans or arrangements, Internal Revenue Service qualified or otherwise maintained or provided by INGENEX and covering or applying to any or all of such employees.
- 5.21 ENVIRONMENTAL CONDITION OF PREMISES; COMPLIANCE WITH ENVIRONMENTAL LAWS. INGENEX has no knowledge that INGENEX has released or disposed of petroleum products or any toxic or hazardous waste or substance on the Premises. INGENEX has been at all times in compliance with all applicable federal, state or local laws, codes and ordinances and all rules and regulations promulgated thereunder (collectively "Environmental Laws") regarding (i) the use,

14

generation, or disposal of "toxic or hazardous substances or wastes" (intended hereby and hereafter to include any and all "toxic" or "hazardous materials" or "hazardous wastes" as defined in applicable Environmental Laws) and petroleum products (including crude oil or any fraction thereof) regardless of the intended use of such petroleum products and regardless of whether defined by any law to be a toxic or hazardous substance or waste; (ii) the transportation of toxic or hazardous substances or wastes provided by any suppliers of INGENEX for use in its operations (and for which transportation INGENEX is or has been legally responsible under applicable Environmental Laws); (iii) the storage of such toxic or hazardous substances or wastes on-site or off-site prior to their use or processing; (iv) the storage of toxic or hazardous substances or wastes generated by INGENEX in the course of such use or processing, and the transportation of toxic or hazardous substances or wastes to the ultimate site of their disposal except in each case, where the failure to so comply would not have a material adverse effect on the Business. All, if any, arrangements with third parties regarding disposal, or the transportation for disposal, of toxic or hazardous substances or wastes of INGENEX have been made in conformity with all applicable Environmental Laws except where the failure to so conform would not have a material adverse effect on the Business.

- 5.22 NO BROKERS. No broker, finder, agent or other person claiming to have acted in any such capacity for or under the authority of INGENEX is entitled to any fee or commission arising out of the transactions contemplated herein.
- 5.23 INSURANCE. There is presently in force fire, theft and general casualty insurance covering the Acquired Assets and the Premises for their full insurable value and INGENEX shall maintain such insurance in force until the Closing Date.
- 5.24 NO FALSE OR MISLEADING STATEMENTS. No representation or warranty relating to INGENEX contained in this Agreement, nor any certificate furnished or to be furnished by INGENEX pursuant to this Agreement when taken or read together as a whole, contains or shall contain any untrue statement of a material fact or omits or will omit to state a material fact necessary to make any representation or warranty contained herein, in light of the circumstances under which made, not misleading. All Schedules and updates thereto have been and are true, correct and complete.

ARTICLE 6 REPRESENTATIONS AND WARRANTIES OF PPD AND SUBSIDIARY

In order to induce INGENEX to consummate the transactions referred to in this Agreement, each of PPD and SUBSIDIARY, jointly and severally, represents, warrants and covenants to and with INGENEX as follows:

- 6.1 ORGANIZATION AND GOOD STANDING. Each of PPD and SUBSIDIARY is a corporation duly constituted, validly existing and in good standing under the laws of the State of North Carolina and has the requisite power and authority to own, license or lease its assets and properties and conduct its business as now conducted.
- 6.2 POWER AND AUTHORITY. PPD and SUBSIDIARY each has full right, power and authority to enter into this Agreement and each of the Transaction

15

Documents to which it is a party and to perform their respective obligations under this Agreement and the Transaction Documents. The execution and delivery of this Agreement and the Transaction Documents to which PPD or SUBSIDIARY is a party and the performance by each of them of their respective obligations hereunder and thereunder have been duly authorized by their respective boards of directors, and no further action or approval is required in order that this Agreement and the Transaction Documents shall be binding upon each of them and enforceable against each of them in accordance with its terms, subject only to bankruptcy, insolvency, reorganization, moratorium and other laws or equitable principles affecting creditors' rights generally.

- 6.3 COMPLIANCE WITH CONTRACTS. The execution, delivery and performance of this Agreement and the Transaction Documents and consummation of the transactions contemplated hereby and thereby will not (i) violate, conflict with or result in a breach of or constitute a default (or an event which, with notice or lapse of time or both, would constitute a default) under any outstanding note, indenture, mortgage, instrument, contract or agreement to which either PPD or SUBSIDIARY is a party or by which either of them or their respective assets are bound, or (ii) violate any of the terms, conditions or provisions of the Articles of Incorporation or Bylaws of PPD or SUBSIDIARY.
- 6.4 NO BROKERS. No broker, finder, agent or other person claiming to have acted in any such capacity for or under the authority of PPD or SUBSIDIARY is entitled to any fee or commission arising out of the transactions contemplated herein other than professional fees for the attorneys and accountants representing PPD or SUBSIDIARY, which professional fees shall be paid solely by PPD or SUBSIDIARY.
- 6.5 NO FALSE OR MISLEADING STATEMENTS. No representation or warranty relating to PPD or SUBSIDIARY contained in this Agreement, nor any certificate furnished or to be furnished by PPD or SUBSIDIARY pursuant to this Agreement, when taken or read together as a whole, contains or shall contain any untrue statement of a material fact or omits or will omit to state a material fact necessary to make any representation or warranty contained herein, in light of the circumstances under which made, not misleading. All Schedules and updates thereto have been and are true, correct and complete.

ARTICLE 7 PRE-CLOSING COVENANTS OF INGENEX

From and after the date of this Agreement and continuing through and to the Closing Date, INGENEX shall use its good faith business efforts to:

- 7.1 CONDUCT OF BUSINESS. Carry on the Business in the ordinary course and in substantially the same manner and with like standards as heretofore maintained.
- 7.2 MAINTAIN RELATIONSHIPS. Maintain INGENEX's current relationships with its collaborative scientific partners, customers and suppliers as they relate to the Business.
- 7.3 COOPERATION. Cooperate fully with PPD and its employees or agents in order to complete all investigations of INGENEX and the Business prior to the Closing Date.

of the Acquired Assets (or any interests therein) to any of INGENEX's shareholders or employees, except as required to consummate the transactions contemplated hereunder.

- 7.5 COMPLIANCE WITH LAWS. Comply in all material respects with all applicable foreign, federal, state and local laws, ordinances, rules and regulations as they relate to the Business.
- 7.6 ENVIRONMENTAL PROBLEMS. Inform PPD or SUBSIDIARY of any known escape, seepage, leakage, spillage, discharge, emission or release of any toxic or hazardous substance or waste on the Premises or any other condition or event which occurs in violation of any Environmental Laws.
- 7.7 ACCESS TO PREMISES. Permit PPD, its authorized agents and representatives, access to the Records and the personnel of INGENEX and to the Premises during normal business hours and in a manner that will not unreasonably interfere with the Business operations of INGENEX for the purpose of conducting due diligence and verifying the existence and condition of the Acquired Assets.
- 7.8 LIMITATION ON EXPENDITURES. Not make any expenditures or enter into any contract or agreement relating to the Acquired Assets, the Assumed Liabilities or the Business exceeding \$25,000, except in the normal course of business or as otherwise required to consummate the transactions contemplated because
- 7.9 USE OF ACQUIRED ASSETS. Not use the Acquired Assets to be conveyed hereunder, or any replacements thereof and additions thereto, other than in the usual and ordinary course of business.
- 7.10 NO DISPOSITION OF ACQUIRED ASSETS. Not license, sell, mortgage, lease or otherwise convey any of the Acquired Assets (or any interest therein) or enter into any contract to effect the same except in the ordinary course of business.
- 7.11 OTHER ACTION. Not take any action, or fail to take any action, or do anything which would in any way have a material adverse effect on the Business or the Acquired Assets or terminate, impair or cancel the License Agreements or the Lease.

ARTICLE 8 CONDITIONS TO OBLIGATIONS OF PPD AND SUBSIDIARY

The obligations of PPD and SUBSIDIARY under this Agreement are subject to the satisfaction, or the waiver thereof by PPD and SUBSIDIARY, of the following express conditions precedent on or before the Closing Date:

8.1 CORRECTNESS OF WARRANTIES. All of the representations and warranties of INGENEX contained in this Agreement or the Transaction Documents were true and correct when made and shall be true and correct at and as of the Closing Date (except such representations, warranties and matters which are specifically limited by reference to an earlier date and were true and correct as of such earlier date).

- 8.2 PERFORMANCE OF OBLIGATIONS. INGENEX has performed and complied with all of the obligations, covenants and conditions required to be performed or complied in all material respects with by it at or prior to the Closing.
- 8.3 NO ADVERSE CHANGE. There shall have been no material adverse change in the Acquired Assets or the Business.
- 8.4 THIRD PARTY CONSENTS. PPD and SUBSIDIARY shall have been furnished with evidence satisfactory to it of the consent or approval of those persons whose consent or approval shall be required to effect the transfer of the Acquired Assets and the assumption of the Assumed Liabilities and to consummate the transactions contemplated by this Agreement.
- 8.5 GOVERNMENTAL APPROVAL. PPD and SUBSIDIARY shall have been furnished with all governmental authority or agency approvals, waivers, authorizations and consents necessary for consummation of or in connection with the transactions

contemplated by this Agreement.

- 8.6 SATISFACTION OF LIENS AND ENCUMBRANCES. All obligations with respect to which any Lien or Encumbrance (other than the Accepted Liens and Encumbrances) against any of the Acquired Assets may have existed shall have been satisfied in full.
- 8.7 NO LITIGATION OR PROCEEDINGS. No litigation, proceedings, lawsuit or investigations shall have been commenced with respect to any or all of the Acquired Assets, the Premises and/or the Business, which may be reasonably expected to result in a material adverse change thereto if decided adversely, nor shall any party seek to enjoin, prevent or alter any material performance under this Agreement or to prevent the Closing.
- 8.8 DOCUMENTS TO BE DELIVERED BY INGENEX. In addition to any other documents or records required to be delivered hereunder, INGENEX shall deliver or cause to be delivered to PPD or SUBSIDIARY at Closing (or as otherwise provided for herein):
- 8.8.1 A certified copy of the resolutions adopted by the board of directors of INGENEX approving and authorizing the execution and delivery of this Agreement and the consummation of the transactions contemplated herein.
 - 8.8.2 The Bill of Sale and Assignment in the form of EXHIBIT 1.2A.
- 8.8.3 An Assignment and Assumption of License Agreements, in the form of EXHIBIT 1.2B.
- 8.8.4 An Assignment and Assumption of Contracts in the form of EXHIBIT 1.2C.
- 8.8.5 An Assignment of Patents and Patent Applications in the form attached hereto as EXHIBIT 1.2D.
- 8.8.6 The Intellectual Property Assignment in the form of EXHIBIT 1.2E.

- 8.8.7 The Assignment, Assumption and Amendment of Lease in the form of EXHIBIT 1.2F, including the consent of the landlord to the assignment of the Lease.
- 8.8.8 The Employment Agreements in the form of EXHIBITS 4.1A and 4.1B.
- 8.8.9 Amendments to the Consulting Agreements with each of Igor Roninson, Ph.D., Richard L. Davidson, Ph.D. and Eli Gilboa, Ph.D. required pursuant to Section 4.2 hereof.
- 8.8.10 Termination of Consulting Agreement with Andrei Gudkov, Ph.D. pursuant to Section 4.2 hereof.
- 8.8.11 The Consulting Agreements in the form of EXHIBITS 4.2A and 4.2B.
- 8.8.12 New Lease Agreement with Phoenix required pursuant to Section 4.4 hereof.
- 8.8.13 Release of the equipment from each of the Master Equipment Lease and the Sublease and Acknowledgment of Assignment required pursuant to Section 4.4 hereof.
- 8.8.14 Release of the GSE Exclusive License Agreement from the License Assignment and License Agreement required pursuant to Section 4.6 hereof.
- 8.8.15 Termination of each of the Employment Agreements with Mark E. Furth, Ph.D. and Tatyana Holzmayer, Ph.D. required pursuant to Section 4.7 hereof.

- $8.8.16\,$ A release in the form of EXHIBIT 4.8 from INGENEX with respect to the Proprietary Information and Inventions Agreement with each person set forth in Section 4.8.
 - 8.8.17 The Non-Competition Agreement in the form of EXHIBIT 4.13.
- 8.8.18 A Closing Certificate dated as of the Closing Date signed by the Chief Executive Officer of INGENEX to the effect that the conditions set forth in Sections 8.1 and 8.2 have been satisfied. The certificates shall have the effect of affirming the representations and warranties made by INGENEX on and as of the Closing Date.
- 8.8.19 Updated Schedules and Exhibits hereto to the extent such updates are necessary to make same full, complete and correct as of the Closing Date.
- 8.8.20 A Severance Agreement in the form of EXHIBIT 8.8.20 to be executed by INGENEX in respect of each person set forth in Section 4.3.
- 8.8.21 Such other instruments, documents or certificates required by this Agreement or as PPD or SUBSIDIARY or its counsel shall reasonably request.

ARTICLE 9 CONDITIONS TO OBLIGATIONS OF INGENEX

19

The obligations of INGENEX under this Agreement are subject to the satisfaction, or the waiver thereof by INGENEX, of the following express conditions precedent on or before the Closing Date:

- 9.1 CORRECTNESS OF WARRANTIES. All of the representations and warranties of PPD and SUBSIDIARY contained in this Agreement or the Transaction Documents were true and correct when made and shall be true and correct at and as of the Closing Date (except such representations, warranties and matters which are specifically limited by reference to an earlier date and were true and correct as of such earlier date).
- 9.2 PERFORMANCE OF OBLIGATIONS. PPD or SUBSIDIARY has performed and complied with all of the obligations, covenants and conditions required to be performed or complied in all material respects with by it at or prior to the Closing.
- 9.3 THIRD PARTY CONSENTS. INGENEX shall have timely obtained each consent or approval of those persons whose consent or approval shall be required to effect the transfer of the Acquired Assets and the assumption of the Assumed Liabilities and to consummate the transactions contemplated by this Agreement.
- 9.4 GOVERNMENTAL APPROVAL. INGENEX shall have timely obtained from each governmental authority or agency all approvals, waivers, authorizations and consents, necessary for consummation of or in connection with the transactions contemplated by this Agreement.
- 9.5 NO LITIGATION OR PROCEEDINGS. No litigation, proceedings, lawsuit or investigations shall have been commenced with respect to any or all of the Acquired Assets, the Premises and/or the Business, which may be reasonably expected to result in a material adverse change thereto if decided adversely, nor shall any party seek to enjoin, prevent or alter any material performance under this Agreement or to prevent Closing.
- 9.6 DOCUMENTS TO BE DELIVERED BY PPD or SUBSIDIARY. In addition to any other documents or records required to be delivered hereunder, PPD or SUBSIDIARY shall deliver or cause to be delivered to INGENEX at Closing (or as otherwise provided for herein):
- 9.6.1 The Purchase Price in accordance with Section 2.1 and the security deposit in accordance with Section 4.11.
- 9.6.2 A certified copy of the resolutions adopted by the board of directors of PPD and SUBSIDIARY approving and authorizing the execution and delivery of this Agreement and the consummation of the transactions contemplated

herein.

- 9.6.3 An Assignment and Assumption of License Agreements in the form of EXHIBIT 1.2B.
- 9.6.4 An Assignment and Assumption of Contracts in the form of EXHIBIT 1.2C.
- 9.6.5 The Intellectual Property Assignment in the form of EXHIBIT 1.2E.

20

- 9.6.6 The Assignment, Assumption and Amendment of Lease in the form of EXHIBIT 1.2F, including any necessary guaranty by PPD and release of TITAN as contemplated by Section 4.5 hereof.
- 9.6.7 The Employment Agreements in the form of EXHIBITS 4.1A and 4.1B.
- 9.6.8 The Consulting Agreements in the form of EXHIBITS 4.2A and 4.2B.
- 9.6.9 New Lease Agreement with Phoenix required pursuant to Section 4.4 hereof.
- 9.6.10 A Closing Certificate dated as of the Closing Date signed by the president or chief executive officer of each of PPD and SUBSIDIARY to the effect that the conditions set forth in Sections 9.1 and 9.2 have been satisfied. The certificates shall have the effect of affirming the representations and warranties made by PPD and SUBSIDIARY on and as of the Closing Date.
- 9.6.11 Such other instruments, documents or certificates required by this Agreement or as INGENEX or its counsel shall reasonably request.

ARTICLE 10 INDEMNIFICATION

- 10.1 INDEMNIFICATION OBLIGATION OF INGENEX. From and after the Closing, INGENEX shall reimburse, indemnify and hold harmless PPD and SUBSIDIARY, their respective shareholders, officers, directors, employees, agents, successors and assigns, from and against any and all claims, causes of action, judgments, awards, demands, damages, losses, settlement payments, deficiencies, liabilities, costs and expenses, including, without limitation, reasonable attorneys' fees and court costs (hereinafter collectively referred to as "Losses") suffered, sustained, incurred or required to be paid by PPD or SUBSIDIARY that result from, relate to or arise out of:
- 10.1.1 Any breach of, or the failure to fulfill or perform, any representation or warranty, or the failure to fulfill or perform in any material respect any agreement or covenant, of INGENEX contained in this Agreement or contained in any certificate furnished to PPD or SUBSIDIARY by INGENEX in connection with this Agreement;
- 10.1.2 The failure by INGENEX to comply fully with the provisions of the "bulk sales laws" of any jurisdiction, or governmental authority or agency, to the extent applicable to the transactions contemplated by this Agreement; or
- 10.1.3 The business, operations or assets of INGENEX other than as relates to the operation of the Business, the Acquired Assets and the GSX System on and after the Closing Date.
- 10.2 LIMITATION ON INDEMNIFICATION OBLIGATION OF INGENEX. Except as otherwise provided in Section 10.8 of this Agreement, the indemnification obligations of INGENEX in respect of any Losses of PPD and SUBSIDIARY shall be limited to Five Million Dollars

- (\$5,000,000) in the aggregate. Further, INGENEX shall have no obligation to indemnify PPD and SUBSIDIARY in respect of any Losses resulting from circumstances described in Section 10.1 of this Agreement until the aggregate amount of such Losses exceeds Seventy-Five Thousand Dollars (\$75,000), and then INGENEX shall be liable for the full extent of all such Losses (including those less than Seventy-Five Thousand Dollars (\$75,000)).
- 10.3 INDEMNIFICATION OBLIGATION OF PPD AND SUBSIDIARY. From and after the Closing, PPD and SUBSIDIARY shall reimburse, indemnify and hold harmless INGENEX and its shareholders, officers, directors, employees, agents, successors and assigns, from and against any and all Losses suffered, sustained, incurred or required to be paid by INGENEX that result from, relate to or arise out of:
- 10.3.1 Any breach of, or the failure to fulfill or perform, any representation or warranty, or the failure to fulfill or perform in any material respect any agreement or covenant, of PPD or SUBSIDIARY contained in this Agreement or contained in any certificate or other writing furnished to INGENEX by or on behalf of PPD or SUBSIDIARY in connection herewith;
- 10.3.2 The failure of PPD or SUBSIDIARY to discharge the Assumed Liabilities in accordance with their terms and the terms of this Agreement; or
- 10.3.3 The operation of the Business, the Acquired Assets and the GSX System on and after the Closing Date.
- 10.4 SURVIVAL OF REPRESENTATIONS AND WARRANTIES. The representations and warranties given or made by INGENEX, PPD or SUBSIDIARY in this Agreement or in any certificate or other writing furnished pursuant hereto shall survive the Closing for a period of twelve (12) months after the date hereof and shall thereafter terminate and be of no further force or effect, except that (i) all representations and warranties relating to Taxes of INGENEX shall survive the Closing for the period of the applicable statute of limitations plus any extensions or waivers thereof, and (ii) any representation or warranty as to which a claim shall have been asserted during the survival period shall continue in effect with respect to such claim until such claim shall have been finally resolved or settled. Notwithstanding any investigation or audit conducted before or after the date hereof or the decision of any party to complete the Closing, each party shall be entitled to rely upon the representations and warranties of the other party set forth herein; provided, however, to the extent that a party discovers that a representation or warranty made by the other party is inaccurate and intentionally fails to disclose the same, the discovering party shall lose its right to indemnification with respect to the inaccuracy of any such representation or warranty.
- 10.5 MANNER OF INDEMNIFICATION. All Losses shall be paid promptly in cash by the party responsible to provide indemnification hereunder (the "Indemnitor") upon demand by the party entitled to indemnification hereunder (the "Indemnitee"). Any claim for indemnification hereunder shall set forth in reasonable detail the basis for such claim and the amount of Losses in respect of which indemnification is being sought and a certification by the Indemnitee that such claim is based upon a reasonable investigation and assessment of such claim by the Indemnitee.
- 10.6 REQUIREMENT FOR NOTICE. In the event that any claim is asserted or any action, suit or proceeding is commenced against an Indemnitee which can reasonably be expected to result in

22

any liability or indemnity being imposed on an Indemnitor, the Indemnitee shall exercise due diligence and reasonable judgment in defending or settling same and shall give notice thereof to the Indemnitor in writing within a reasonable time following the assertion of the claim or commencement of the action, suit or proceeding (but the failure or delay to give any such notice shall not relieve the Indemnitor of any liability on account thereof except to the extent the Indemnitor was materially prejudiced thereby). The Indemnitor shall have the opportunity to participate in (but not control) the defense against such claim, action, suit or proceeding and to participate in any negotiations with respect thereto. The Indemnitee shall have control of any defense or settlement, except

that the Indemnitor shall have the right at any time to assume and prosecute the defense or claim and to assume control of the defense or settlement in the event it admits in writing its liability to the Indemnitee hereunder with respect to such matter and provides adequate security to assure its payment of such liability to the Indemnitee.

10.7 OTHER RIGHTS AND REMEDIES NOT AFFECTED. Subject to the limitations set forth in this Article 10, the indemnification rights of any party under this Article 10 are independent of and in addition to such rights and remedies as such party may have in equity for any misrepresentation, breach of warranty or failure to fulfill any agreement or covenant hereunder on the part of INGENEX, PPD or SUBSIDIARY.

10.8 REPURCHASE RIGHTS. In the event that PPD and SUBSIDIARY gives written notice of demand for payment of indemnification obligations required to be paid by INGENEX to PPD and SUBSIDIARY under Section 10.1 which, when added to indemnification obligations already paid by INGENEX to PPD or SUBSIDIARY under Section 10.1, exceed in the aggregate Three Million Dollars (\$3,000,000), then in such case INGENEX shall have right to repurchase (the "Repurchase Transaction") the Acquired Assets, and any improvements made or developed in respect of the Acquired Assets since the Closing Date, if and to the extent still owned by SUBSIDIARY. INGENEX shall exercise its rights to repurchase the Acquired Assets hereunder by giving written notice to PPD and SUBSIDIARY of its intent to do so within thirty (30) days after final resolution of and written notice to INGENEX of demand for payment of indemnification claims required to be paid to PPD and SUBSIDIARY which, in the aggregate when added with all prior indemnification claims paid by INGENEX, exceed Three Million Dollars (\$3,000,000). The closing of the Repurchase Transaction shall occur within sixty (60) days after INGENEX's notice of its intention to exercise its right of repurchase hereunder. In the event INGENEX exercises its right of repurchase, the purchase price for the Acquired Assets shall be Eight Million Seven Hundred Twenty-Two Thousand Five Hundred Dollars (\$8,722,500) adjusted as follows: (i) less all amounts actually paid by INGENEX for indemnification obligations to PPD and SUBSIDIARY in respect of any Losses, (ii) less the fair market value, determined by independent appraisal at the time of sale, of any portion of the Acquired Assets sold by SUBSIDIARY after the Closing Date, and (iii) plus Twenty-Seven Thousand Two Hundred Twelve and 40/100 Dollars (\$27,212.40) for SUBSIDIARY's security deposit with the landlord under the Lease. The purchase price shall be paid in cash or other immediately available funds to SUBSIDIARY at the closing of the Repurchase Transaction. In addition to payment of the purchase price, INGENEX shall effective as of the closing of the Repurchase Transaction: (i) assume, indemnify, defend and hold harmless PPD and SUBSIDIARY from and against all of the Assumed Liabilities to the extent related to performance due on or after the closing of the Repurchase Transaction, and (ii) reimburse, indemnify and hold harmless PPD and SUBSIDIARY, their respective shareholders, officers, directors, employees, agents, successors and assigns in respect of any and all Losses of PPD and SUBSIDIARY without application of any of the dollar limitations set forth in Section 10.2 above and without

23

application of the time limit set forth in Section 10.4 above. Effective as of the closing of the Repurchase Transaction, SUBSIDIARY shall convey the Acquired Assets still owned by it to INGENEX and shall warrant to INGENEX that, since the Closing Date, SUBSIDIARY has done nothing to impair title to such Acquired Assets as SUBSIDIARY received it. INGENEX shall be responsible for obtaining any necessary governmental and third party consents to effect the Repurchase Transaction and for negotiating and obtaining any employment and consulting agreements it desires in connection with the Repurchase Transaction. SUBSIDIARY and PPD agree to provide INGENEX with any all information of which either has knowledge in the same format, based upon the same investigation as conducted by INGENEX, in which said information was provided to SUBSIDIARY and PPD by INGENEX (but not with any representation or warranty of any sort by PPD or SUBSIDIARY) with respect to the matters covered in Sections 5.3, 5.4, 5.5, 5.9, 5.10, 5.14 and 5.15 of this Agreement.

ARTICLE 11 MISCELLANEOUS PROVISIONS

11.1 NOTICES. Any notice or other communication required or which may be given hereunder shall be in writing and shall be deemed duly given when

delivered in person, or three (3) days after when mailed by certified (with the sender's receipt postmarked by a postal employee) or registered mail (in either case, with a copy by ordinary first-class mail) or one (1)-day after when mailed by next-day express mail, or when sent by Federal Express or similar overnight delivery service company, postage or express charges prepaid, in a securely wrapped envelope addressed to the intended recipient as follows:

11.1.1 If to INGENEX:

c/o Titan Pharmaceuticals, Inc.

Attn: President

400 Oyster Point Boulevard, Suite G South San Francisco, CA 94080-1921

Telephone: (415) 244-4990 Facsimile: (415) 244-4991

With a copy to:

Charles I. Weissman, Esq.
Shereff, Friedman, Hoffman & Goodman, LLP
919 Third Avenue
New York, NY 10022-9998
Telephone (212) 758-9500
Facsimile (212) 758-9526

24

11.1.2 If to SUBSIDIARY or PPD:

Fred N. Eshelman, Chief Executive Officer Fred B. Davenport, Jr., General Counsel Pharmaceutical Product Development, Inc. 3151 17th Street Extension Wilmington, NC 28412 Telephone: (910) 251-0081 Facsimile: (910) 772-6951

With a copy to:

G. Stephen Diab, Esq.
Murchison, Taylor, Kendrick & Gibson, L.L.P.
16 North Fifth Avenue
Wilmington, NC 28401-4593
Telephone: (910) 763-2426
Facsimile: (910) 763-6561

The designation of the person to be so notified or the address of such person for the purposes of such notice may be changed from time to time by notice hereunder.

- 11.2 PARTIES IN INTEREST. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective permitted successors and assigns, but shall not be assigned by any party without the written consent of the other party hereto (which consent may be withheld in the sole discretion of such other party). This Agreement shall not be for the benefit of or be enforceable by any person, firm or entity other than PPD, SUBSIDIARY or INGENEX, their permitted successors and assigns, and there are no third party beneficiaries hereof.
- 11.3 ENTIRE AGREEMENT. This Agreement along with the schedules and exhibits attached hereto and to be attached hereto at Closing sets forth all of the promises, covenants, agreements, conditions and understandings among SUBSIDIARY, INGENEX and PPD with respect to the subject matter hereof, and supersedes all prior and contemporaneous agreements and understandings, inducements or conditions, express or implied, oral or written, with respect hereto, except as contained herein.
- 11.4 AMENDMENT AND WAIVER. This Agreement shall not be amended, modified, altered or rescinded, or any rights hereunder waived, except by written agreement signed by the parties hereto. Moreover, no waiver by any party of any right or condition, or of the breach of any term, covenant, representation or

warranty contained in this Agreement, in any one or more instances shall be deemed or construed as a further or continuing waiver of any such condition or breach or a waiver of any other condition or of the breach of any other term, covenant, representation or warranty set forth in this Agreement.

11.5 SCHEDULES AND EXHIBITS. Concurrently with the execution of this Agreement, the parties have attached to this Agreement certain schedules and exhibits referred to herein, which

25

schedules and exhibits are hereby made a part hereof by reference thereto. Certain schedules shall be attached hereto after the execution hereof, or updated as of Closing and shall be true, accurate and complete as of the date of attachment.

- 11.6 CONTROLLING LAW. The parties hereto acknowledge that, notwithstanding that this Agreement or any counterpart hereof may be executed and consummated elsewhere, this Agreement shall be governed by and construed and enforced in accordance with the laws of the State of North Carolina.
- 11.7 CAPTIONS. The captions of the various sections, subsections and clauses are solely for the convenience of the parties hereto and shall not control or affect the meaning or construction of this Agreement.
- 11.8 COUNTERPARTS. This Agreement may be executed in one or more counterparts, each of which shall constitute an original agreement but all of which together shall constitute one and the same instrument.
- 11.9 SEVERABILITY. If any term or provision of this Agreement is found by a court of competent jurisdiction to be invalid or unenforceable, in whole or in part, then the rest and remainder of this Agreement, and such provisions or term in other situations, shall remain valid and enforceable to the fullest extent permitted by law, and to that end this Agreement shall be severable.
- 11.10 RELEASE OF INFORMATION. Neither party shall make any public announcement regarding this Agreement before Closing without the other party's prior consent. PPD and/or TITAN shall have the right to make public announcements regarding this Agreement at such times as it determines, in good faith and in its sole discretion, disclosure is required by applicable securities laws or NASDAQ National Market rules. Any other public announcements regarding this Agreement shall be made by PPD and INGENEX at a mutually acceptable date and time. Nothing contained herein shall prevent either party at any time from promptly furnishing any information required by any governmental authority or (in the case of PPD or TITAN) the NASDAQ National Market rules.
- 11.11 COSTS. Each party shall bear its own costs of professional and other consulting fees related to this transaction.

26

SUBSIDIARY NO. 3, INC.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, individually or through their duly authorized officers, and affixed their seals hereto, all as of the day and year first above written.

| [CORPORATE SEAL] | | PHARMACEUTICAL PRODUCT DEVELOPMENT, INC. |
|------------------|-----|--|
| ATTEST: | BY: | /s/ Frederic N. Eshelman |
| Secretary | | NAME: FREDERIC N. ESHELMAN TITLE: CHIEF EXECUTIVE OFFICER |
| | | |

[CORPORATE SEAL]

| BY: | /s/ Frederic N. Eshelman | | | |
|-----|---|--|--|--|
| | NAME: FREDERIC N. ESHELMAN TITLE: PRESIDENT | | | |
| | INGENEX, INC. | | | |
| BY: | /s/ Mark E. Furth | | | |
| | NAME: MARK E. FURTH TITLE: PRESIDENT | | | |
| | | | | |

SUBLICENSE AGREEMENT

THIS SUBLICENSE AGREEMENT (the "Agreement") is made and entered into as of this 15th day of July 1997 by and between ANSAN PHARMACEUTICALS, INC.("Ansan") and TITAN PHARMACEUTICALS, INC.("Titan").

RECITALS

- A. Titan is the principal stockholder of Ansan.
- B. Ansan has licensed patent rights pursuant to the terms of a License Agreement dated as of October 31, 1992 by and between Ansan and Bar-Ilan Research & Development Company Ltd.
- C. The parties desire to sublicense to Titan certain Ansan drug compounds in certain fields in return for transfer to Ansan of all the Ansan securities owned by Titan and payment by Titan of a royalty on net sales of the drug compounds, subject to the terms and conditions of this Agreement.

THE PARTIES AGREE AS FOLLOWS:

1. DEFINITIONS. As used in this Agreement, the following terms shall have the following meaning:

"AFFILIATE" shall mean any company or entity, the voting control of which is at least fifty per cent (50%), directly or indirectly, owned or controlled by Titan or which, directly or indirectly, owns or controls at least fifty percent (50%) of Titan or which is under common control with Titan, and shall also mean any company or entity in fact effectively controlled by or under common control with Titan.

"AN 9" shall mean pivaloyloxymethyl butyrate.

"AN 10" shall mean butylidene dibutyrate.

"BAR-ILAN" shall mean Bar-Ilan Research & Development Company Ltd., an Israeli corporation.

"BAR-ILAN LICENSE AGREEMENT" shall mean the License Agreement dated as of October 31, 1992 by and between Ansan and Bar-Ilan.

"DISCOVERY" shall mean Discovery Laboratories, Inc., a Delaware corporation

"HEMOGLOBINOPATHIES PATENT" shall mean issued U.S. Patent No. 5,569,675 and any related foreign patent applications or patents, including any continuations, continuations—in—part, divisional, reissues, reexaminations or extensions thereof.

"LICENSED PRODUCTS" shall have the meaning set forth in Section $1.4\ {
m of}$ the Bar-Ilan License Agreement.

"LICENSED PROCESSES" shall have the meaning set forth in Section $1.5\,$ of the Bar-Ilan License Agreement.

"MERGER AGREEMENT" shall mean that Agreement and Plan of Reorganization dated as of the date hereof by and between Ansan and Discovery.

"NET SALES" shall have the meaning set forth in Section 1.7 of the Bar-Ilan License Agreement.

"NUDELMAN PATENT" shall mean issued U.S. Patent No. 5,200,553 and any related foreign patent applications or patents, including any continuations, continuations—in—part, divisional, reissues, reexaminations or extensions thereof.

"PATENT RIGHTS" shall have the meaning set forth in Section 1.3 of the Bar-Ilan License Agreement.

"SECURITIES" shall mean those Ansan securities set forth in Exhibit A hereto.

"TITAN FIELD" shall mean: (a) with respect to all compounds except AN 10, all indications except (i) those covered by the Hemoglobinopathies Patent and (ii) topical applications (other than oncologic disorders) and (b) with respect to AN 10, non-topical applications for oncologic disorders.

2. SUBLICENSE.

2

- 2.1 GRANT. Subject to the terms and conditions of this Agreement, at the Closing (as defined in Section 4) Ansan shall grant to Titan a worldwide sublicense to practice under the Patent Rights, and to make, have made, use, lease and/or sell the Licensed Products in the Titan Field and to practice the Licensed Processes in the Titan Field, said sublicense to include the right to subsublicense in the Titan Field and to be exclusive to Titan in the Titan Field. The parties agree that the obligations to pay royalties to Bar-Ilan pursuant to Article 4 of the Bar-Ilan License Agreement and Titan's obligation to pay Ansan royalties pursuant to Section 2.4 hereof shall continue until the expiration of the last applicable patent on such Licensed Product or Licensed Process in such country, after which time Ansan's license under the Bar-Ilan License Agreement and Titan's sublicense under this Agreement shall become fully paid-up, perpetual licenses.
- 2.2 INCORPORATION OF BAR-ILAN LICENSE AGREEMENT TERMS. The parties hereby incorporate the following terms of the Bar-Ilan License Agreement, modified to provide that Titan shall have the rights and obligations of LICENSEE and ANSAN shall have the rights and obligations of BAR-ILAN and references to "this License Agreement" shall be interpreted to mean "this Agreement": Sections 1.3, 1.4, 1.5, 1.7, 2.2, 2.3, 3.1(except for the last clause "consistent with the business plan described in Paragraph 3.2.3, below"), 3.3, 3.5, 4.1, 4.2, 4.3, 4.4, 5.1, 5.2, 5.3, 7.1, 7.2, 7.4, 7.5, 7.6, 7.7,7.8, 9.1,9.2, 9.3, 9.4, 9.5, 10.1 and 10.2.
- 2.3 PATENT PROSECUTION OF NUDELMAN PATENT. Titan at its own expense and utilizing patent counsel of its choice shall have the sole right and responsibility for the prosecution and maintenance of the Nudelman Patent, provided that Titan shall not take any action with respect to the Nudelman Patent that could result in any diminution of rights relating to the composition of matter claims relating to AN10. Ansan shall have the sole right and responsibility for the prosecution and maintenance of the Hemoglobinopathies Patent.
- 2.4 ROYALTIES TO ANSAN. In addition to the royalties payable pursuant to Section 2.2, Titan shall pay to Ansan to the end of the term of the Patent Rights or until this Agreement is terminated in accordance with its terms, in each calendar year an amount equal to 2% of Net Sales by Titan, any Affiliate or any sublicensee of Titan.
- 3. SECURITIES. Subject to the terms and conditions of this Agreement, Titan agrees to transfer to Ansan at the Closing (as defined in Section 4) all right, title and interest in the Securities, free and clear of any and all liens, encumbrances and security interests. Ansan and Titan acknowledge that a portion of the Securities are held by Continental Stock Transfer & Trust Company as Escrow

3

Agent pursuant to the terms of an Escrow Agreement dated as of May ____, 1995. Ansan and Titan agree to take all steps reasonably necessary to obtain release of such Securities and delivery to Ansan in accordance with the terms of this Agreement.

4. CLOSING. The closing of the transactions contemplated by this Agreement (the "Closing") shall take place simultaneously with the closing of the Merger Agreement at the offices of Heller Ehrman White & McAuliffe, 525

University Avenue, Palo Alto, California or at such other time, date and location as the parties agree.

5. CONDITIONS TO CLOSING.

- 5.1 CONDITIONS TO OBLIGATIONS OF TITAN. The obligations of Titan to consummate the transactions contemplated hereby shall be subject to satisfaction at the Closing of each of the following conditions, any of which may be waived by Titan:
- (a) REPRESENTATIONS AND WARRANTIES. The representations and warranties of Ansan contained in this Agreement shall have been true and correct in all material respects as of the date of this Agreement and as of the date of the Closing. Titan shall have received a certificate with respect to the foregoing signed on behalf of Ansan by the Chief Executive Officer of Ansan.
- (b) CLOSING OF THE MERGER AGREEMENT. The transactions contemplated by the Merger Agreement shall have closed.
- (c) SIDE AGREEMENT. Bar-Ilan shall have executed and delivered the Side Agreement in substantially the form attached as Exhibit 5 hereto.
- 5.2 CONDITIONS TO OBLIGATIONS OF ANSAN. The obligations of Ansan to consummate the transactions contemplated hereby shall be subject to satisfaction at the Closing of each of the following conditions, any of which may be waived by Ansan:
- (a) REPRESENTATIONS AND WARRANTIES. The representations and warranties of Titan contained in this Agreement shall have been true and correct in all material respects as of the date of this Agreement and as of the date of the Closing. Ansan shall have received a certificate with respect to the foregoing signed on behalf of Titan by the Chief Executive officer of Titan.

4

- (b) CLOSING OF THE MERGER AGREEMENT. The transactions contemplated by the Merger Agreement shall have closed.
 - 6. REPRESENTATIONS AND WARRANTIES OF TITAN.
- 6.1 AUTHORITY. Titan has all requisite corporate power and authority to enter into this Agreement and to consummate the transactions contemplated hereby. The execution and delivery of this Agreement and the consummation of the transactions contemplated hereby have been duly authorized by all necessary corporate action on the part of Titan.
- 6.2 OWNERSHIP OF SECURITIES. Titan is the sole record and beneficial owner of the Securities and owns all right, title and interest in such Securities free and clear of all liens, encumbrances and security interests and at the Closing shall transfer title to such Securities free and clear of all liens, encumbrances and security interests. Titan does not own beneficially or of record or have the right to purchase any securities of Ansan other than the Securities.

7. REPRESENTATIONS AND WARRANTIES OF ANSAN.

- 7.1 AUTHORITY. Ansan has all requisite corporate power and authority to enter into this Agreement and to consummate the transactions contemplated hereby. The execution and delivery of this Agreement and the consummation of the transactions contemplated hereby have been duly authorized by all necessary corporate action on the part of Ansan, subject to approval of the stockholders of Ansan.
- 7.2 BAR-ILAN LICENSE AGREEMENT. The Bar-Ilan License Agreement is in full force and effect, and to the knowledge of Ansan, neither Ansan nor Bar-Ilan is in material breach of any term of the Bar-Ilan License Agreement. The execution and delivery of this Agreement and the consummation of the transactions contemplated hereby will not constitute a breach of the Bar-Ilan License Agreement.
- 7.3 PATENTS. Except as disclosed in any filings by Ansan with the Securities and Exchange Commission pursuant to the Securities Act of 1933 or the

Securities Exchange Act of 1934 prior to the date hereof, Ansan has no knowledge of any pending or threatened litigation claiming that any claim of the Nudelman Patent infringes the rights of any other person, and to Ansan's knowledge there has been no infringement of the Nudelman Patent by any other person. During the

5

terms of the Bar-Ilan License Agreement, Ansan has satisfied all of its obligations to maintain the Nudelman Patent.

8. TRANSFER OF KNOW-HOW. Within 30 days after the Closing, Ansan shall transfer to Titan, free of charge, (a) copies of all pertinent documents relating to the sublicense herein granted, including all reports, data, contracts and regulatory submissions and (b) all remaining Licensed Product which has been formulated for non-topical use. Ansan and Titan shall promptly after the Closing take all steps necessary to transfer the IND into Titan's name and shall notify the FDA of such intention within 30 days after the Closing. If necessary, the parties will cooperate in good faith to establish an agreement for continuing support of the AN 9 product development program. The parties will negotiate the specifics of such an agreement and the reimbursement to be made to Ansan for expenses incurred in connection therewith on or before the Closing.

MISCELLANEOUS.

9.1 NOTICES. Any notice or other communication required or permitted hereunder shall be in writing and shall be delivered personally or sent by facsimile transmission, overnight courier, or certified, registered or express mail, postage prepaid. Any such notice shall be deemed delivered when so delivered personally or when sent by facsimile transmission (provided that an appropriate indication of successful transmission is given by the sending facsimile transmitter and a confirmation copy is sent by overnight courier), or if sent by overnight courier, one day after deposit with an overnight courier, or, if mailed, three days after the date of deposit in the United States mails as follows:

IF TO ANSAN: Ansan Pharmaceuticals, Inc.

400 Oyster Point Boulevard, Suite 435 South San Francisco, California 94080

Attention: President

Telecopy No. (415) 635-0201

IF TO TITAN: Titan Pharmaceuticals, Inc.

400 Oyster Point Boulevard, Suite 505 South San Francisco, California 94080

Attention: President

Telecopy No. (415) 244-4956

Either party may, by notice given in accordance with this Section to the other party, designate another address or person for receipt of notices hereunder.

- 9.2 BINDING EFFECT; AMENDMENT; ASSIGNMENT. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and permitted assigns. Nothing in this Agreement is intended to confer upon any person other than the parties hereto and their respective successors and permitted assigns any rights or remedies whatsoever. This Agreement may be amended only by an instrument in writing signed on behalf of each of the parties. Neither party may sell, transfer or assign any of its rights or obligations under this Agreement without the written consent of the other party, which will not be unreasonably withheld.
- 9.3 GOVERNING LAW. This Agreement shall be governed by and construed in accordance with the laws of the State of California applicable to agreements made between California residents and to be performed entirely within such State.
- 9.4 EXPENSES. All costs and expenses incurred in connection with the transactions contemplated by this Agreement shall be paid by the party incurring such expenses.

- 9.5 FURTHER ASSURANCES. Each party will execute and deliver all such further documents and instruments and take all such further actions as may be necessary to consummate the transactions contemplated hereby.
- 9.6 DISPUTES. Any and all disputes between the parties arising from or relating to this Agreement shall be referred to the Chief Executive Officers of Ansan and Titan, respectively, and they shall endeavor to resolve such dispute in good faith for a period of 45 days. If any such dispute has not been resolved within such 45-day period, either party may file an action in a court of competent jurisdiction.
- 9.7 ENTIRE AGREEMENT. This Agreement constitutes the entire agreement between the parties with respect to the subject matter hereof and supersedes all other prior and contemporaneous agreements, understandings, discussions and correspondence between the parties with respect to the subject matter.

7

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

ANSAN PHARMACEUTICALS, INC. TITAN PHARMACEUTICALS, INC.

By: /s/Vaughn H.J. Shalson

Vaughn H.J. Shalson President and Chief Executive Officer By: /s/Louis R. Bucalo

Louis R. Bucalo, M.D.,
President and Chief Executive
Officer

EXHIBIT 11

TITAN PHARMACEUTICALS, INC. (A DEVELOPMENT STAGE COMPANY) STATEMENT OF COMPUTATION OF NET INCOME (LOSS) PER SHARE

<TABLE> <CAPTION>

| | THREE MONTHS ENDED JUNE 30, | | · · | | |
|--|-----------------------------|----------------|----------------|------------------|--|
| | 1996 | | 1996 | 1997 | |
| | (unaudited) | | (unauc | iited) | |
| <\$> | <c></c> | - | <c></c> | <c></c> | |
| Net income (loss) | \$(2,685,447) | \$ 4,217,077 | \$ (6,100,363) | \$ (8, 941, 489) | |
| Deemed dividend upon conversion of preferred stock | - | - | (5, 431, 871) | - | |
| Net loss applicable to common stock | (2,685,447) | 4,217,077 | (11,532,234) | (8,941,489) | |
| | | | | | |
| Weighted average shares of | | | | | |
| common stock outstanding | 10,757,940 | 13,046,102 | 9,791,050 | 12,971,902 | |
| Common stock equivalents | - | 111,280 | - | - | |
| Shares used in computing net loss per share | 10,757,940 | 13,157,382 | 9,791,050 | 12,971,902 | |
| | | | | | |
| Net income (loss) per share | \$ (0.25) | \$ 0.32 | \$ (1.18) | \$ (0.69) | |
| | | | | | |

</TABLE>

<ARTICLE> 5

<LEGEND>

THIS SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED FROM THE BALANCE SHEET AND STATEMENT OF OPERATION AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO SUCH FINANCIAL STATEMENTS.

</LEGEND>

| <\$> | <c></c> | |
|---|---------|----------------|
| <period-type></period-type> | 3-MOS | |
| <fiscal-year-end></fiscal-year-end> | 3-1403 | DEC-31-1997 |
| <period-end></period-end> | | JUN-30-1997 |
| <cash></cash> | | 11,413,881 |
| <securities></securities> | | 500,000 |
| <receivables></receivables> | | 300,000 |
| <allowances></allowances> | | 0 |
| <inventory></inventory> | | 0 |
| <current-assets></current-assets> | | 13,319,270 |
| <pp&e></pp&e> | | 128,681 |
| <pre><depreciation></depreciation></pre> | | (40,825) |
| <total-assets></total-assets> | | 13,788,144 |
| <current-liabilities></current-liabilities> | | 4,488,588 |
| <bonds></bonds> | | 0 |
| <preferred-mandatory></preferred-mandatory> | | 0 |
| <preferred></preferred> | | 0 |
| <common></common> | | 49,622,782 |
| <other-se></other-se> | | (47, 075, 396) |
| <total-liability-and-equity></total-liability-and-equity> | | 13, 788, 144 |
| <sales></sales> | | , , |
| <total-revenues></total-revenues> | | 147,745 |
| <cgs></cgs> | | . 0 |
| <total-costs></total-costs> | | 0 |
| <other-expenses></other-expenses> | | 17,281,866 |
| <loss-provision></loss-provision> | | 0 |
| <interest-expense></interest-expense> | | 138,741 |
| <income-pretax></income-pretax> | | (8,941,489) |
| <income-tax></income-tax> | | 0 |
| <income-continuing></income-continuing> | | 0 |
| <discontinued></discontinued> | | 0 |
| <extraordinary></extraordinary> | | 0 |
| <changes></changes> | | 0 |
| <net-income></net-income> | | (8,941,489) |
| <eps-primary></eps-primary> | | (0.67) |
| <eps-diluted></eps-diluted> | | (0.67) |
| | | |

</TABLE>