Developing treatment options for patients with rare gastrointestinal and endocrine disorders and unmet medical need

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BioNJ BioPartnering

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May 2011

NPS investment highlights

- Two advancing Phase 3 registration programs in specialty orphan indications
  - GATTEX® (teduglutide) for short bowel syndrome (SBS)
  - NPSP558 (parathyroid hormone 1-84) for hypoparathyroidism
- Lean operations through strategic outsourcing
- Strong financial position at 3/31/11
  - Pro forma cash and investments of ~$220M[1]
  - Only recourse debt is ~$17M[2] convertible note due in 2014
- Valuable royalty-based portfolio

Partially monetized — Unencumbered

1 Adjusted for April 2011 public offering of 12.7M shares of common stock for estimated net proceeds of $107M
2 Amount adjusted for January 2011 and April 2011 conversions

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GATTEX® (teduglutide) in short bowel syndrome

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GATTEX® (teduglutide) is a potential first-in-class GLP-2 analog

- GATTEX is an analog of human glucagon-like peptide 2 (GLP-2)
- GLP-2 is a 33-amino peptide involved in the structural and functional repair and maintenance of the intestine
- GATTEX (teduglutide) differs from GLP-2 through the substitution of one amino acid
- GATTEX is initially being developed for adult short bowel syndrome
  - Rare and chronic disorder of high unmet medical need
  - Orphan drug status and patent exclusivity through April 2020

Short bowel syndrome and parenteral nutrition (PN) dependence

Disorder characteristics

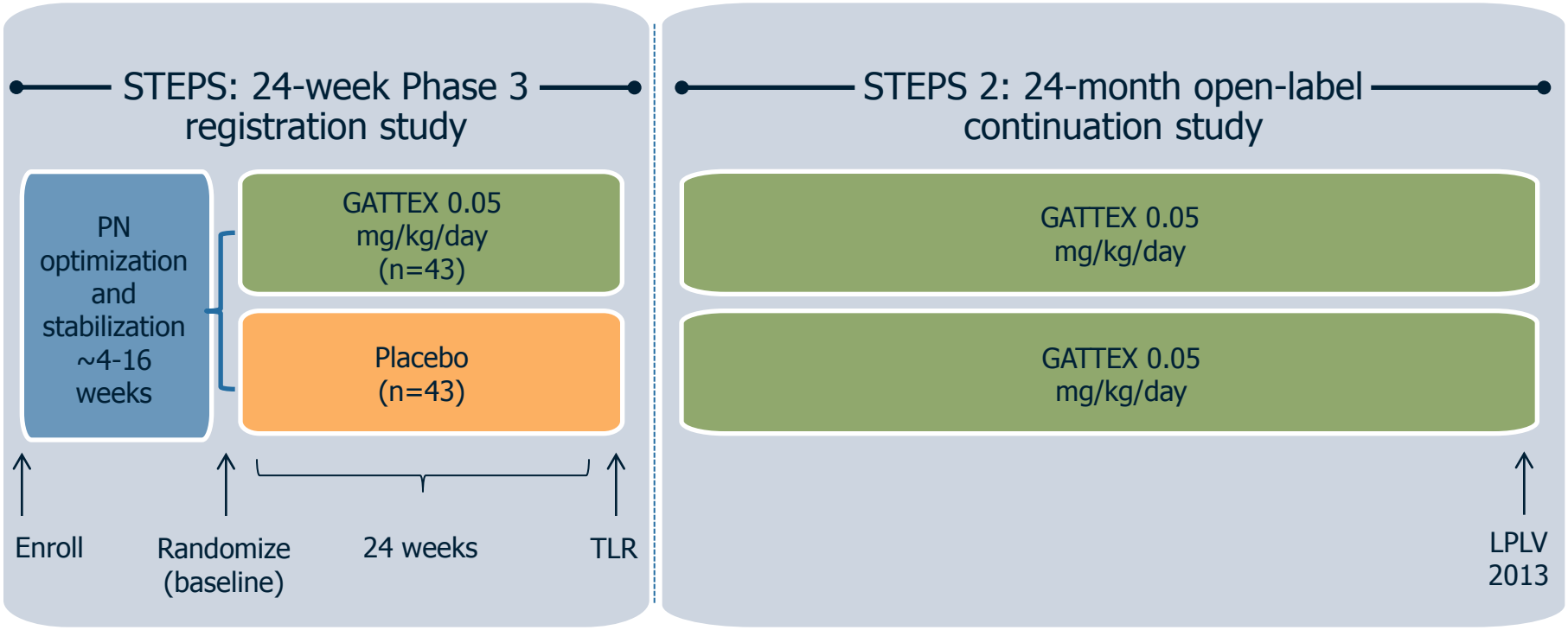
- Typically occurs after extensive intestinal resection due to disease or injury
- Remaining gastrointestinal tract unable to absorb sufficient nutrients and/or fluids on a conventional diet
- Patients rely on parenteral nutrition or fluids (PN) to survive

Challenges of PN dependence

- Majority of PN dependent patients are on PN for 5+ nights per week; 7+ hours per day
- Can lead to serious life-threatening complications, including infections, blood clots, and liver damage
- Negatively impacts quality-of-life with diarrhea, difficulty sleeping, frequent urination and loss of functional independence

New therapies are needed that can improve the structural and functional integrity of the remaining intestine to minimize or eliminate the need for PN

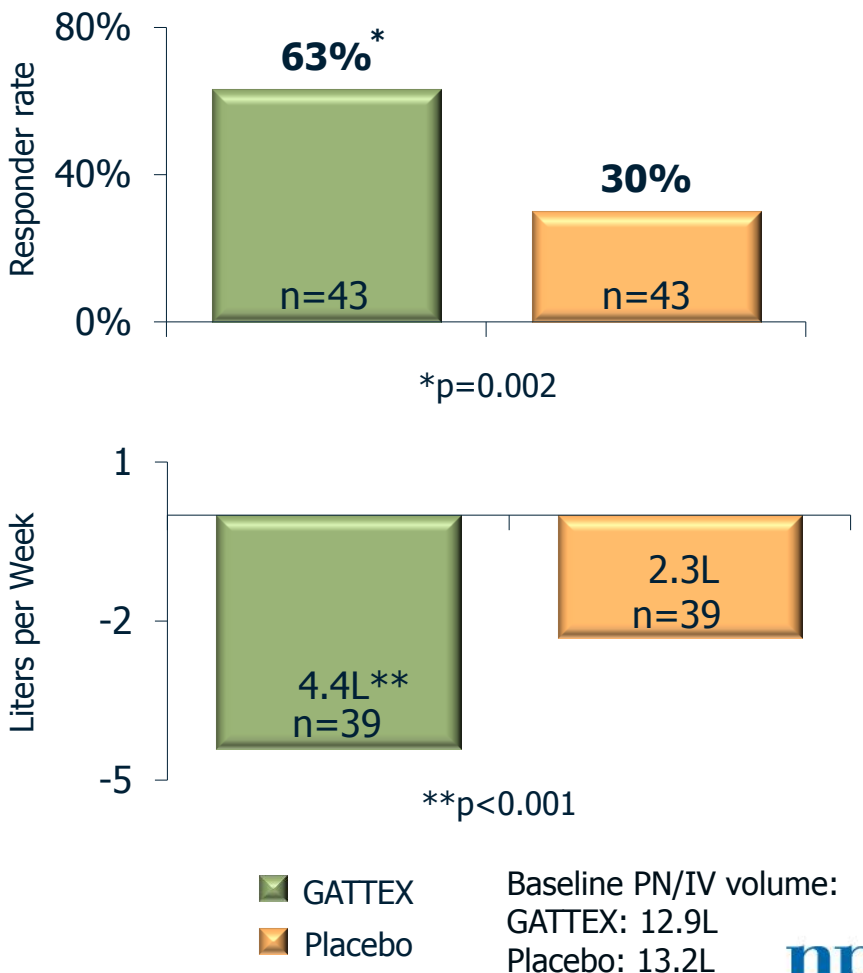
Design of STEPS Phase 3 registration study and STEPS 2 open-label continuation study



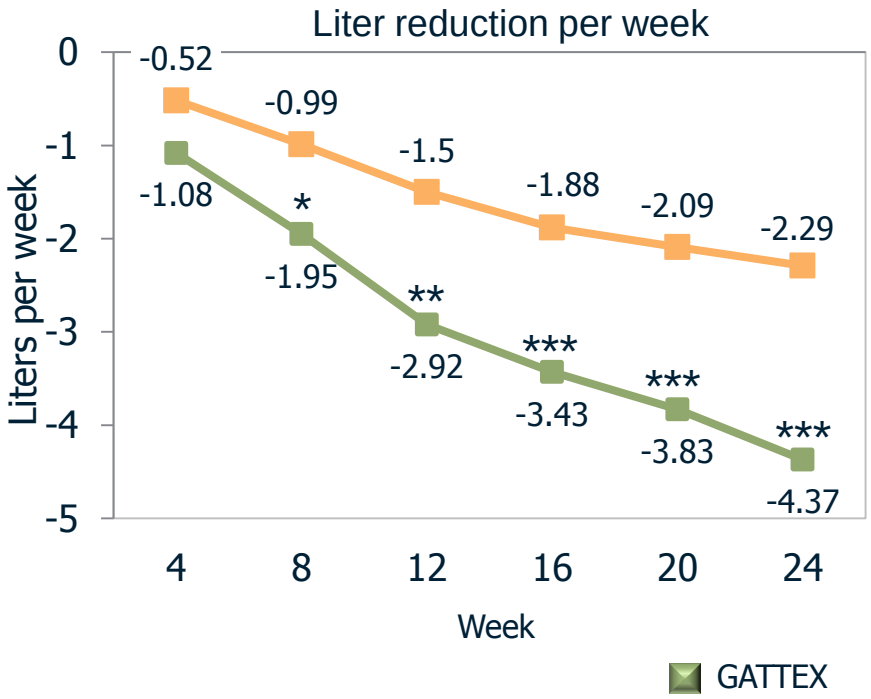
Primary endpoint for STEPS: 20% to 100% reduction of PN/IV from baseline at weeks 20 & 24

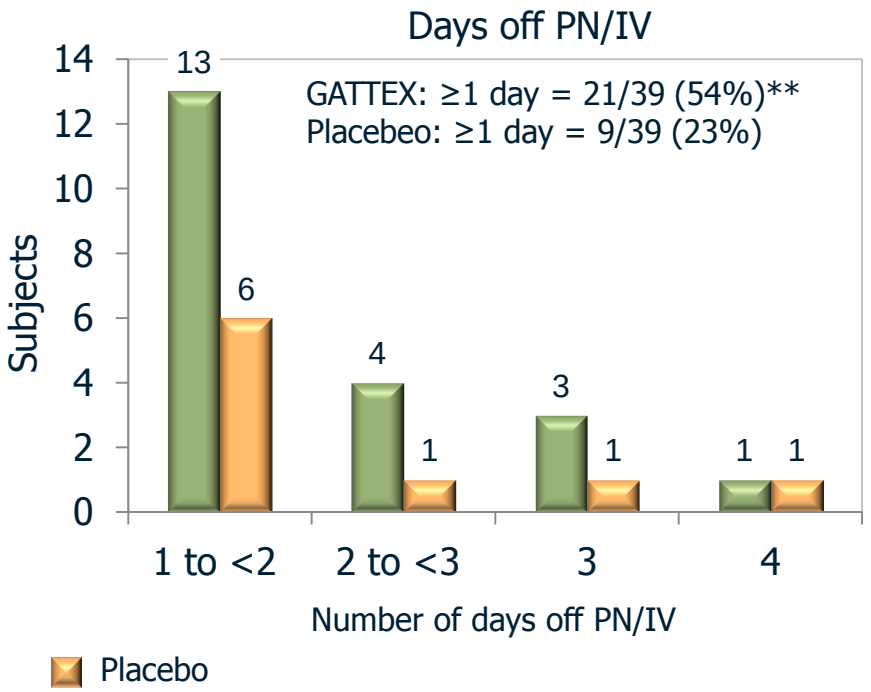
Results from Phase 3 study show GATTEX reduces parenteral nutrition dependence in adult SBS patients

- Results from pivotal Phase 3 'STEPS' study reported in January 2011
- Primary endpoint: responder defined as 20 to 100 percent reduction in weekly PN/IV volume at weeks 20 and 24
- GATTEX was well tolerated
  - 2 GATTEX & 3 placebo patients out of 86 discontinued due to AEs
  - Most common AEs were GI
- GATTEX-treated patients achieved a 34% reduction in weekly PN/IV volume from baseline at week 24



Response to GATTEX increased steadily throughout the study; 54% of GATTEX-treated patients achieved one or more days off PN/IV at week 24





* p=≤ 0.05, ** p=≤ 0.01, *** p=≤ 0.001

GATTEX in SBS could represent a significant commercial opportunity

- Rare and chronic disorder
  - 10-15,000 PN-dependent SBS patients in the U.S.
- Significant unmet need
  - Direct cost of PN can exceed $100,000 per year
  - PN is palliative, associated with significant co-morbidities, and negatively impacts quality-of-life
- Market research confirms the need for new and better treatments
  - 80% of physicians interviewed agreed that reducing reliance on PN was a top treatment goal
  - Patients are highly motivated and seeking solutions
- GI-focused mechanism-of-action and favorable safety profile could make GATTEX an exciting new approach for reducing PN dependence of SBS patients

NPSP558 in hypoparathyroidism

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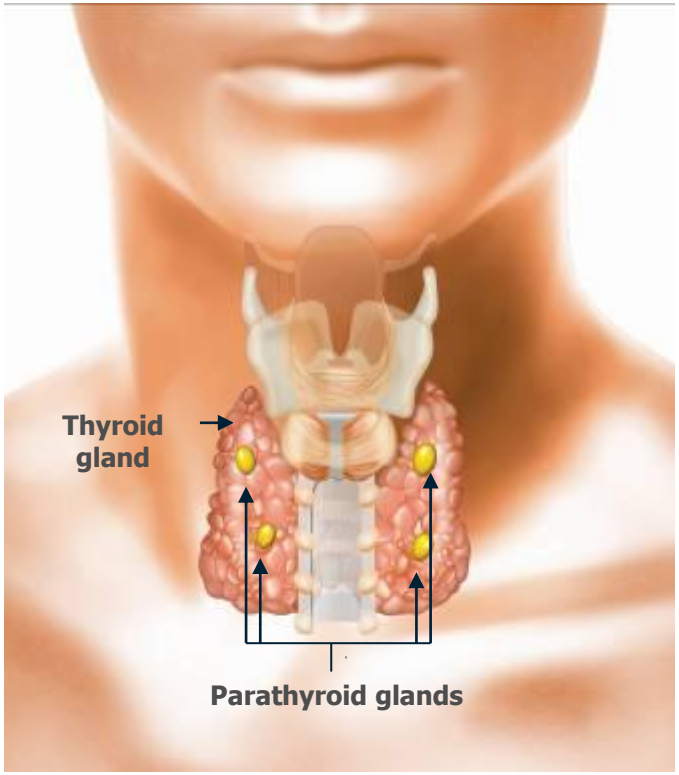
Hypoparathyroidism is one of the few hormonal deficiency disorders with no approved replacement therapy

- A chronic state of decreased secretion or decreased activity of the parathyroid hormone (PTH)
- Typically the result of neck, thyroid or parathyroid surgery
- Parathyroid injury leads to deficient PTH secretion
- The lack of PTH leads to hypocalcemia and hyperphosphatemia
- Consequences:
  - Neurological and muscular dysfunction
  - Reduced bone remodeling
- ~60,000 to 65,000 patients in the U.S.



Source: Market research.

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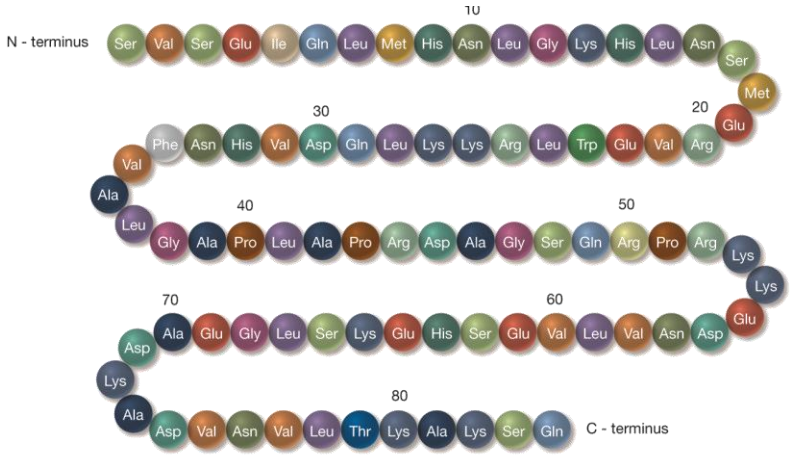
NPSP558 is in Phase 3 development as a hormone replacement therapy for hypoparathyroidism

Current standard of care is palliative

- Therapeutic goal is to raise serum calcium and reduce severity of symptoms
- Currently managed with life-long calcium and vitamin D metabolites supplementation
- Associated co-morbidities, include:
  - Organ calcifications in kidneys, heart, and brain
  - Risk of vitamin D intoxication
- Some patients require permanent catheter for intravenous calcium

NPSP558 objective: Treat the underlying condition by giving the body what it is missing

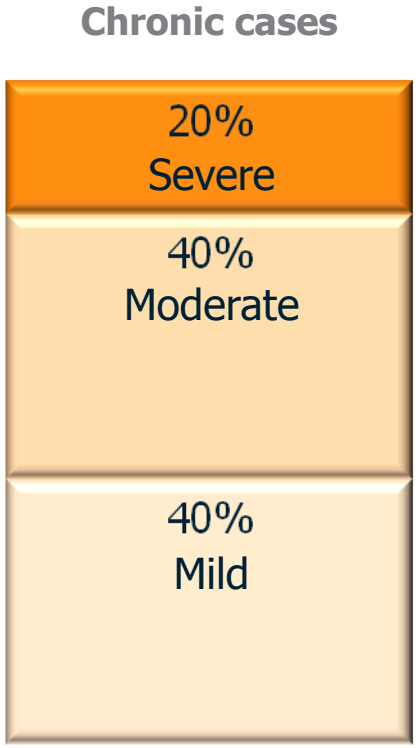
NPSP558 is a bioengineered replica of the full-length native 84-amino acid peptide



Recent market research underscores the favorable market dynamics for hypoparathyroidism

Survey of 290 physicians

- Treating the underlying cause ranked as the most important in terms of unmet needs and the greatest advantage NPSP558's profile
- Over 50% of physicians interviewed indicated they will be early-adopters
- Mild, moderate, and severe cases were largely categorized based on symptoms
  - Largest expected use in moderate to severe



Source: 2010 third-party market research funded by NPS

Upcoming milestones and conclusion

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NPS expects key news flow over the next 12 months

Event / Milestone	Timing
GATTEX in short bowel syndrome:	
Report top line results from STEPS registration study	√
EU regulatory filing (Nycomed)	√
Additional STEPS data at DDW meeting	√
US regulatory filing	2H11
STEPS 2 extension study interim data	2H11
NPSP558 in hypoparathyroidism:	
Randomize last patient in REPLACE registration study	√
Report top line results from REPLACE	4Q11

NPS investment highlights

- Two Phase 3 registration programs for orphan drugs to treat GI and endocrine disorders with key catalysts in 2011
  - GATTEX® (teduglutide) in short bowel syndrome (SBS)
    - Additional Phase 3 data presentations, regulatory filings (EU/US)
  - NPSP558 (parathyroid hormone 1-84) in hypoparathyroidism
    - Phase 3 top-line results
- Lean operations through strategic outsourcing
- Strong financial position at 3/31/11
  - Pro forma cash and investments of ~$220 million[1]
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Thank you and questions

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