

Hyperion Therapeutics Inc

CORTELLIS COMPANY DETAILED PIPELINE REPORT

A comprehensive coverage of the the company's drug pipeline portfolio including detailed product records.

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GLOSSARY

Number of Drugs in Active Development

Number of drugs associated with the company or subsidiary that are currently in active development, i.e. the development status for the drug(s) is one of the following: Discovery, Clinical, Phase II, Phase III, Pre-registration, Registered, Launched, or Suspended.

Number of Inactive Drugs

Number of drugs associated with the company or subsidiary that are currently classified as inactive, i.e. where the development status for the drug(s) is one of the following: No Development Reported, Discontinued, or Withdrawn.

Number of Patents as Owner

Number of patents associated with the company where the company is listed as owner; i.e. the relationship type (or way the patent refers to the company) is: Patent Assignee/Owner, Patent owner (not assignee), Licensee for development and marketing, Licensee – marketing only (Distributor), Patent assignee of family member, Inferred assignee.

Number of Patents as Third Party

Number of patents associated with the company where the company is listed as third party; i.e. the relationship type (or way the patent refers to the company) is: Patent assignee (not owner), Ex-Licensee for development and marketing, Ex-Licensee marketing only (Distributor), Customer of technology, Ex-Customer of technology, Patent opponent or infringer, Affiliate organization of inventor, Owner of underlying technology.

Patents summary table

This table represents a summary of the core patent coverage for this company covering Therapeutic EP, US and WO patents since 1990 only.

Number of Deals

A count of deals where the company or one of its subsidiaries is the primary company.

Key Indications

Displays top ten key indications for the company and its subsidiaries based on frequency (indications occurring with high and identical frequency are always included, and this may result in more than ten Key Indications being listed). Includes both indications associated with patents where the company is patent owner and indications associated with drugs in active development. A drug is classified as 'active' if it features on a row (or rows) in the current development status table where the status is one of the following: Discovery, Clinical, Phase I, Phase II, Phase III, Pre-registration, Registered, Launched, or Suspended.

Key Target-based Actions

Displays top ten key target-based actions for the company and its subsidiaries based on frequency (actions occurring with high and identical frequency are always included, and this may result in more than ten Key Target-based Actions being listed). Includes both target-based actions associated with patents where the company patent owner and target-based actions associated with drugs in active development. A drug is classified as 'active' if it features on a row (or rows) in the current development status table where the status is one of the following: Discovery, Clinical, Phase I, Phase II, Phase III, Pre-registration, Registered, Launched, or Suspended. A target-based action is one that is associated with a target.

Key Technologies

Displays top ten key technologies for the company and its subsidiaries based on frequency (technologies occurring with high and identical frequency are always included, and this may result in more than ten Key Technologies being listed). Includes both key technologies associated with patents where the company relationship is patent owner and key technologies associated with drugs in active development. A drug is classified as 'active' if it features on a row (or rows) in the current development status table where the status is one of the following: Discovery, Clinical, Phase I, Phase II, Phase III, Pre-registration, Registered, Launched, or Suspended.

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| Launched | 10 |



Hyperion Therapeutics Inc

COMPANY OVERVIEW

| Company Name | Hyperion Therapeutics Inc |
|--|--|
| Parent Company Name | Hyperion Therapeutics Inc |
| Website | http://www.hyperiontx.com/ |
| Country | US |
| Number of Drugs in Active Development | 3 |
| Number of Inactive Drugs | 0 |
| Number of Patents as Owner | 4 |
| Number of Patents as Third Party | 0 |
| Number of Deals | 1 |
| Key Indications | Hepatic encephalopathy, Uremia, Hyperammonemia |
| Key Target-based Actions | |
| Key Technologies | Analytical method,Prodrug |

COMPANY PROFILE

SUMMARY

Hyperion Therapeutics Inc focuses on gastrointestinal and hepatology programs and products that address unmet medical needs to improve patient care.

FINANCIAL

In May 2013, the company was to be listed on the NASDAQ Biotechnology Index under the symbol 'HPTX', following the semi-annual re-ranking of the list, effective from May 20, 2013.

In March 2013, the company priced a follow-on offering of 2,875,000 common stock shares at \$20.75 each. At that time, the underwriters were granted a 30-day option to buy an additional 431,250 shares of common stock to cover overallotments, if any. The offering was expected to close on March 13, 2013; later that month, the offering was closed with net proceeds of approximately \$64.5 million; in May 2012, the company reported that the net proceeds from the offering was \$63.7 million.

In April 2012, Hyperion filed a registration statement with the SEC for the issual of initial public offering of its common stock; at that time, the offering details were not disclosed; in July 2012, the company priced its initial public offering of 5 million shares of its common stock at \$10 per share. At that time, underwriters were granted 30-day option to purchase up to an additional 750,000 shares of common stock to cover any over-allotments. The offering was expected to close on July 31, 2012; later that month, the offering was completed, with underwriters exercising their overallotment option in full

In June 2009, Hyperion rasied \$60 million from a series C financing.

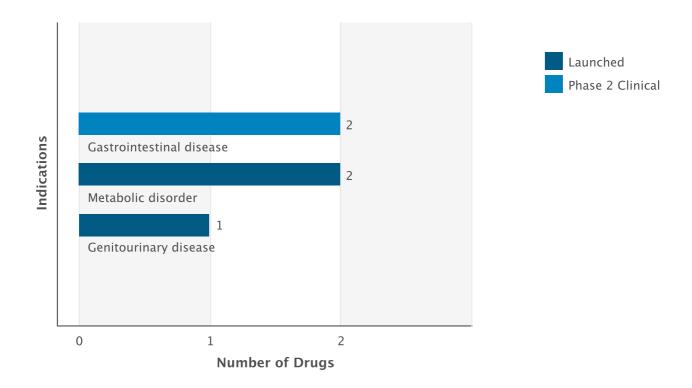
In September 2007, Hyperion raised \$4 million from a series B financing.

PRODUCT PORTFOLIO SUMMARY

DRUGS

Drugs by Indication

Active Drugs by Indication Chart

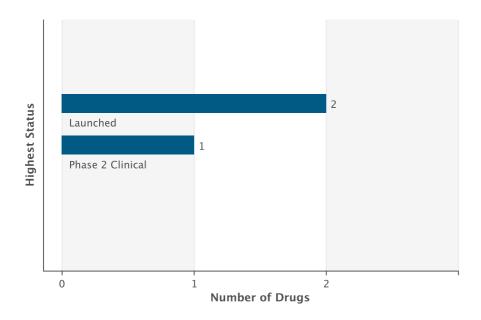


Drugs by Indication Table

| Indication | Active | Inactive | Total |
|--------------------------|--------|----------|-------|
| Gastrointestinal disease | 2 | 0 | 2 |
| Metabolic disorder | 2 | 0 | 2 |
| Genitourinary disease | 1 | 0 | 1 |

Drugs by Highest Status

Active Drugs by Highest Status Chart



Drugs by Highest Status Table

| Development Status | Number of Drugs |
|--------------------|-----------------|
| Launched | 2 |
| Phase 2 Clinical | 1 |

DEALS

| Deal Type | Prin | cipal | Par | tner | Total |
|--|--------|----------|--------|----------|-------|
| | Active | Inactive | Active | Inactive | |
| Drug - Development/Commercialization License | 0 | 0 | 1 | 0 | 1 |

CLINICAL TRIALS

Trials by Condition Studied

| Condition Studied | Ongoing | All |
|--------------------------|---------|-----|
| Metabolic disorder | 1 | 9 |
| Gastrointestinal disease | 1 | 7 |
| Genitourinary disease | 1 | 7 |
| Genetic disorder | 0 | 1 |



Trials by Phase

| Phase | Ongoing | All |
|---------|---------|-----|
| Phase 4 | 1 | 1 |
| Phase 3 | 0 | 3 |
| Phase 2 | 0 | 5 |
| Phase 1 | 0 | 4 |

Phase Definitions

Phase 3 Clinical

Includes Phase 3, Phase 3b, Phase 3a, Phase 2/3 (where enrolment count is 300 or over)

Phase 2 Clinical

Includes Phase 2, Phase 2a, Phase 2b, Phase 1/2 (where enrolment count is 100 or over), Phase 2/3 (where enrolment count is under 300 or not specified)

Phase 1 Clinical

Includes Phase 1, Phase 1a, Phase 1, Phase 1/2 (where enrolment count is under 100 or not specified), Phase 0

PATENTS *

| Indication | As Owner | As Third Party | Total |
|--------------------------|----------|----------------|-------|
| Gastrointestinal disease | 3 | 0 | 3 |
| Genitourinary disease | 3 | 0 | 3 |
| Hematological disease | 1 | 0 | 1 |
| Degeneration | 1 | 0 | 1 |
| Neoplasm | 1 | 0 | 1 |
| Metabolic disorder | 3 | 0 | 3 |
| Neurological disease | 1 | 0 | 1 |

^{*} This table represents a summary of the core patent coverage for this company covering Therapeutic EP, US and WO patents since 1990 only.

PRODUCT PORTFOLIO DRUG PIPELINE DETAIL

PLEASE NOTE: Highest status refers to highest development of that drug for one of the active companies

sodium phenylbutyrate, Hyperion / Swedish Orphan

sodium phenylbutyrate, Hyperion / Swedish Orphan SNAPSHOT

| Drug Name | sodium phenylbutyrate, Hyperion / Swedish Orphan |
|----------------------|--|
| Key Synonyms | Buphenyl;Ammonaps |
| Originator Company | Ucyclyd Pharma Inc |
| Active Companies | Ucyclyd Pharma Inc;Hyperion Therapeutics Inc;Swedish Orphan Biovitrum AB;Orphan Pacific, Inc |
| Inactive Companies | CMIC Co Ltd |
| Highest Status | Launched |
| Active Indications | Uremia |
| Target-based Actions | Histone deacetylase inhibitor |
| Other Actions | Renal system agent;Nitrogen metabolism modulator |
| Technologies | Oral formulation;Tablet formulation;Small molecule therapeutic;Formulation powder |
| Last Change Date | 06-Jun-2013 |

sodium phenylbutyrate, Hyperion / Swedish Orphan DEVELOPMENT PROFILE

SUMMARY

Hyperion Therapeutics, following a product acquisition from Ucyclyd Pharma (now part of Medicis (a subsidiary of Valeant)) has developed and launched tablet and powder formulations of sodium phenylbutyrate (Ammonaps, Buphenyl) for the treatment of patients with urea cycle disorders,. In December 1999, the drug was approved in Denmark and was subsequently launched. At that time, the drug was approved in Ireland; at the same time, the drug was approved in the Netherlandsand subsequently launched. By November 2000, the drug had been launched in the US, Canada, Russia, Australia and Europe. In November 2000, the drug was launched in France. In March 2002, tablet formulation was approved in Spain by Swedish Orphan Biovitrum and was subsequently launched. In May 2006, Swedish Orphan Biovitrum was marketing the drug in France. In June 2006, the drug was launched in Sweden. In March 2007, the drug was launched in Portugal by Swedish Orphan Biovitrum. In September 2012, Japanese licensee, CMIC received approval in Japan; in November 2012, CMIC's marketing rights were transferred to its subsidiary, Orphan Pacific. By January 2013, the drug had been launched in Japan.

sodium phenylbutyrate, Hyperion / Swedish Orphan DEVELOPMENT STATUS

CURRENT DEVELOPMENT STATUS

| Company Indication Country | Development Status | Date |
|--|--------------------|-------------|
| Hyperion Therapeutics Uremia Australia Inc | Launched | 02-May-2013 |



| Company | Indication | Country | Development Status | Date |
|--------------------------------|------------|-------------|---------------------------|-------------|
| Hyperion Therapeutics Inc | | Canada | Launched | 02-May-2013 |
| Hyperion Therapeutics Inc | Uremia | France | Launched | 02-May-2013 |
| Hyperion Therapeutics Inc | Uremia | Germany | Launched | 02-May-2013 |
| Hyperion Therapeutics Inc | Uremia | Italy | Launched | 02-May-2013 |
| Hyperion Therapeutics Inc | Uremia | Spain | Launched | 02-May-2013 |
| Hyperion Therapeutics Inc | Uremia | UK | Launched | 02-May-2013 |
| Hyperion Therapeutics Inc | Uremia | US | Launched | 02-May-2013 |
| Orphan Pacific, Inc | Uremia | Japan | Launched | 17-Jan-2013 |
| Swedish Orphan Biovitrum AB | Uremia | Denmark | Launched | |
| Swedish Orphan Biovitrum AB | Uremia | France | Launched | 01-May-2006 |
| Swedish Orphan Biovitrum AB | Uremia | Netherlands | Launched | |
| Swedish Orphan Biovitrum AB | Uremia | Portugal | Launched | 21-Mar-2007 |
| Swedish Orphan Biovitrum AB | Uremia | Spain | Launched | |
| Swedish Orphan Biovitrum AB | Uremia | Sweden | Launched | 01-Jun-2006 |
| Ucyclyd Pharma Inc | Uremia | Australia | Launched | 08-Nov-2000 |
| Ucyclyd Pharma Inc | Uremia | Canada | Launched | 08-Nov-2000 |
| Ucyclyd Pharma Inc | Uremia | France | Launched | 08-Nov-2000 |
| Ucyclyd Pharma Inc | Uremia | Germany | Launched | 08-Nov-2000 |
| Ucyclyd Pharma Inc | Uremia | Italy | Launched | 08-Nov-2000 |
| Ucyclyd Pharma Inc | Uremia | Spain | Launched | 08-Nov-2000 |
| Ucyclyd Pharma Inc | Uremia | UK | Launched | 08-Nov-2000 |
| Ucyclyd Pharma Inc | Uremia | US | Launched | 08-Nov-2000 |
| Swedish Orphan Biovitrum AB | Uremia | Ireland | Registered | 08-Dec-1999 |
| CMIC Co Ltd | Uremia | Japan | Discontinued | 09-Nov-2012 |

sodium phenylbutyrate, Hyperion / Swedish Orphan CHEMICAL STRUCTURES



| CAS Registry Number: | Confidence Level: |
|-------------------------|-------------------|
| 1716-12-7 | 1 |
| | O - Na+ |
| Name | Туре |
| Lunaphen | Trade Name |
| triButyrate | Trade Name |
| Buphenyl | Trade Name |
| sodium 4-phenylbutyrate | |
| sodium phenylbutyrate | |

sodium phenylbutyrate, Hyperion / Swedish Orphan DRUG NAMES

| Names | Туре |
|--|---------------|
| sodium phenylbutyrate | |
| sodium phenylbutyrate, Ucyclyd / Swedish Orphan | |
| Buphenyl | Trade Name |
| sodium 4-phenylbutyrate | |
| sodium phenylbutyrate, Medicis | |
| Ammonaps | Trade Name |
| CMK-304 | Research Code |
| sodium phenylbutyrate, Hyperion / Swedish Orphan | |
| sodium 4-phenylbutyrate, Ucyclyd | |

sodium phenylbutyrate, Hyperion / Swedish Orphan CLINICAL TRIALS

Trials by Phase and Condition Studied

| Pha Clir | se 4 lical | | se 3 nical | Pha Clin | se 2 lical | Pha Clir | se 1 nical | Pha Unspe | | То | tal |
|---------------------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|-----|--------------|-----|
| On- going | All | On- going | All | On- going | All | On- going | All | On- going | All | On- going | All |
| Cholesta | sis | | | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Maple syrup urine disease | | | | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |

Total Trials by Phase and Status

| | se 4 nical | Phase 3 Clinical | | Phase 2 Clinical | | Phase 1 Clinical | | Phase Unspecified | | Total | |
|---------------------------|---------------|---------------------|-----|---------------------|-----|---------------------|-----|----------------------|-----|--------------|-----|
| On- going | All | On- going | All | On- going | All | On- going | All | On- going | All | On- going | All |
| Total by Phase and Status | | | | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 2 |

Phase Definitions

Phase 3 Clinical

Includes Phase 3, Phase 3b, Phase 3a, Phase 2/3 (where enrolment count is 300 or over)

Phase 2 Clinical

Includes Phase 2, Phase 2a, Phase 2b, Phase 1/2 (where enrolment count is 100 or over), Phase 2/3 (where enrolment count is under 300 or not specified)

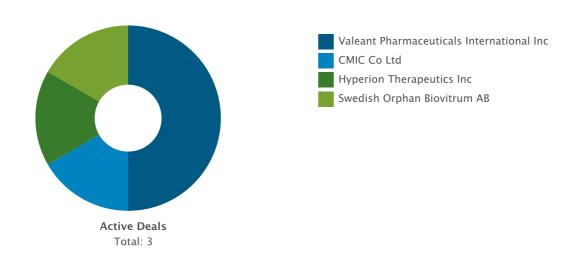
Phase 1 Clinical

Includes Phase 1, Phase 1a, Phase 1, Phase 1/2 (where enrolment count is under 100 or not specified), Phase 0

sodium phenylbutyrate, Hyperion / Swedish Orphan DEALS AND PATENTS

DEALS

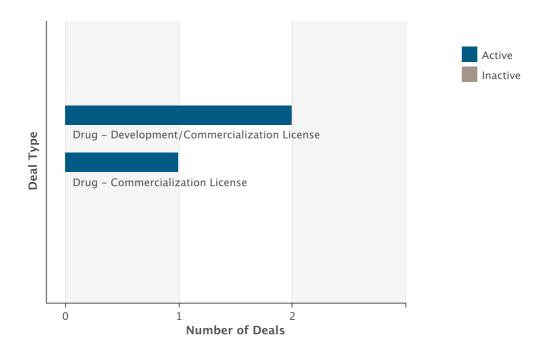
Deals by Parent Company Chart



Deals by Parent Company Table

| Company Name | Principal Active Inactive | | Partner Active Inactive | | Total |
|---|---------------------------|---|-------------------------|---|-------|
| Valeant Pharmaceuticals International Inc | 3 | 0 | 0 | 0 | 3 |
| CMIC Co Ltd | 0 | 0 | 1 | 0 | 1 |
| Swedish Orphan Biovitrum AB | 0 | 0 | 1 | 0 | 1 |
| Hyperion Therapeutics Inc | 0 | 0 | 1 | 0 | 1 |

Deals by Type Chart



Deals by Type Table

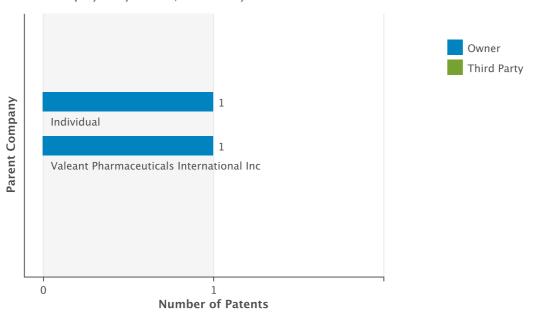
| Deal Type | Active | Inactive | Total |
|--|--------|----------|-------|
| Drug - Development/Commercialization License | 2 | 0 | 2 |
| Drug - Commercialization License | 1 | 0 | 1 |



PATENTS

Patents by Parent Company Chart

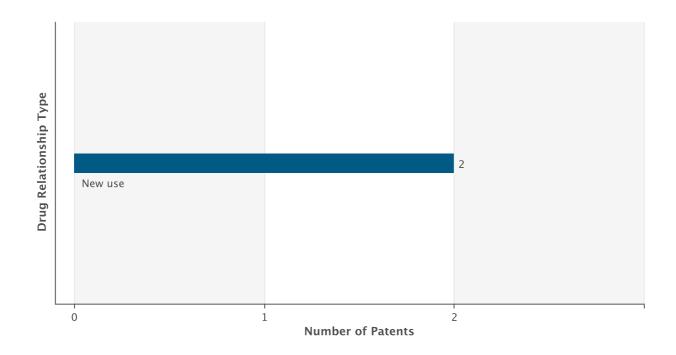
Chart displayed by Owner/Third Party



Patents by Parent Company Table

| Company Name | As Owner | As Third Party | Total |
|---|----------|----------------|-------|
| Individual | 1 | 0 | 1 |
| Valeant Pharmaceuticals International Inc | 1 | 0 | 1 |

Patents by Drug Relationship Type Chart



Patents by Drug Relationship Type Table

| Drug Relationship | Total |
|-------------------|-------|
| New use | 2 |

glycerol phenylbutyrate

glycerol phenylbutyrate SNAPSHOT

| Drug Name | glycerol phenylbutyrate |
|----------------------|---|
| Key Synonyms | glycerol phenylbutyrate;Ravicti |
| Originator Company | Ucyclyd Pharma Inc |
| Active Companies | Hyperion Therapeutics Inc |
| Inactive Companies | Ucyclyd Pharma Inc |
| Highest Status | Launched |
| Active Indications | Hyperammonemia;Hepatic encephalopathy |
| Target-based Actions | |
| Other Actions | Nitrogen metabolism modulator |
| Technologies | Prodrug;Oral formulation;Oral liquid formulation;Small molecule therapeutic |
| Last Change Date | 04-May-2013 |

glycerol phenylbutyrate DEVELOPMENT PROFILE

SUMMARY

Hyperion Therapeutics, under license from Ucyclyd Pharma, has developed and launched Ravicti, an oral liquid formulation of ammonia-scavenging glycerol phenylbutyrate (HPN-100, glyceryl tri-(4-phenylbutyrate), GT4P), a prodrug of phenylbutyrate (pre-prodrug of phenylacetate), for the treatment of urea cycle disorders (UCD),. The drug is also being developed for the potential treatment of hepatic encephalopathy (HE). In February 2013, the drug was launched for UCD. In October 2009, a phase II trial was initiated for hepatic encephalopathy in the US and Eastern Europe; in June 2012, data were reported.

glycerol phenylbutyrate DEVELOPMENT STATUS

CURRENT DEVELOPMENT STATUS

| Company | Indication | Country | Development Status | Date |
|---------------------------|------------------------|-------------------|---------------------------|-------------|
| Hyperion Therapeutics Inc | Hyperammonemia | US | Launched | 28-Feb-2013 |
| Hyperion Therapeutics Inc | Hepatic encephalopathy | Eastern Europe | Phase 2 Clinical | 03-Dec-2009 |
| Hyperion Therapeutics Inc | Hepatic encephalopathy | US | Phase 2 Clinical | 08-Oct-2009 |
| Ucyclyd Pharma Inc | Hepatic encephalopathy | US | Discontinued | 28-Aug-2007 |
| Ucyclyd Pharma Inc | Hyperammonemia | US | Discontinued | 28-Aug-2007 |



glycerol phenylbutyrate CHEMICAL STRUCTURES

| CAS Registry Number: | Confidence Level: |
|---------------------------------|-------------------|
| 611168-24-2 | 2 |
| | |
| Name | Туре |
| glycerol phenylbutyrate | INN; USAN |
| HPN-100 | Research Code |
| GT4P | Research Code |
| glyceryl tri-(4-phenylbutyrate) | |

glycerol phenylbutyrate DRUG NAMES

| Names | Туре |
|---------------------------------|---------------|
| HPN-100 | Research Code |
| glyceryl tri-(4-phenylbutyrate) | |
| glycerol phenylbutyrate | INN, USAN |
| GT4P | Research Code |
| Ravicti | Trade Name |

glycerol phenylbutyrate CLINICAL TRIALS

Trials by Phase and Condition Studied

| | Phase 4 Phase 3 Clinical Clinical | | Phase 2 Clinical | | Phase 1 Clinical | | Phase Unspecified | | Total | | |
|--------------|--------------------------------------|--------------|---------------------|--------------|---------------------|--------------|----------------------|--------------|-------|--------------|-----|
| On- going | All | On- going | All | On- going | All | On- going | All | On- going | All | On- going | All |
| Uremia | | | | | | | | | | | |
| 1 | 1 | 0 | 1 | 0 | 2 | 0 | 3 | 0 | 0 | 1 | 7 |



| Hepatic encephalopathy | | | | | | | | | | | |
|------------------------|------------|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 1 | 6 |
| Hyperam | monemia | | | | | | | | | | |
| 1 | 1 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 1 | 5 |
| Liver cirr | hosis | | | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Metaboli | c disorder | | | | | | | | | | |
| 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Genetic disorder | | | | | | | | | | | |
| 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

Total Trials by Phase and Status

| | se 4 nical | | ise 3 nical | | se 2 nical | | se 1 nical | | ase ecified | То | tal |
|--------------|---------------------------|--------------|----------------|--------------|---------------|--------------|---------------|--------------|----------------|--------------|-----|
| On- going | All | On- going | All | On- going | All | On- going | All | On- going | All | On- going | All |
| Total by | Total by Phase and Status | | | | | | | | | | |
| 1 | 1 | 0 | 3 | 0 | 4 | 0 | 4 | 0 | 0 | 1 | 12 |

Phase Definitions

Phase 3 Clinical

Includes Phase 3, Phase 3b, Phase 3a, Phase 2/3 (where enrolment count is 300 or over)

Phase 2 Clinical

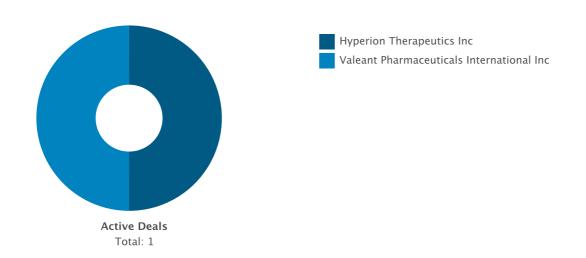
Includes Phase 2, Phase 2a, Phase 2b, Phase 1/2 (where enrolment count is 100 or over), Phase 2/3 (where enrolment count is under 300 or not specified)

Phase 1 Clinical

Includes Phase 1, Phase 1a, Phase 1, Phase 1/2 (where enrolment count is under 100 or not specified), Phase 0

glycerol phenylbutyrate DEALS AND PATENTS

DEALS Deals by Parent Company Chart



Deals by Parent Company Table

| Company Name | | cipal Inactive | | tner Inactive | Total |
|---|---|--------------------------|---|------------------|-------|
| Valeant Pharmaceuticals International Inc | 1 | 0 | 0 | 0 | 1 |
| Hyperion Therapeutics Inc | 0 | 0 | 1 | 0 | 1 |

Deals by Type Chart



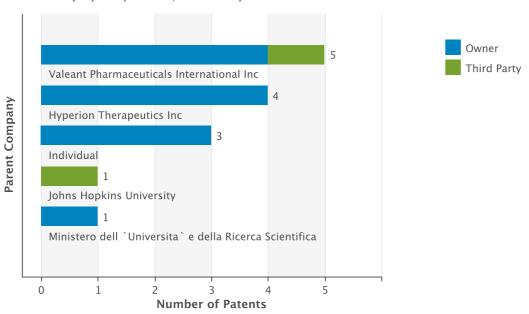
Deals by Type Table

| Deal Type | Active | Inactive | Total |
|--|--------|----------|-------|
| Drug - Development/Commercialization License | 1 | 0 | 1 |

PATENTS

Patents by Parent Company Chart

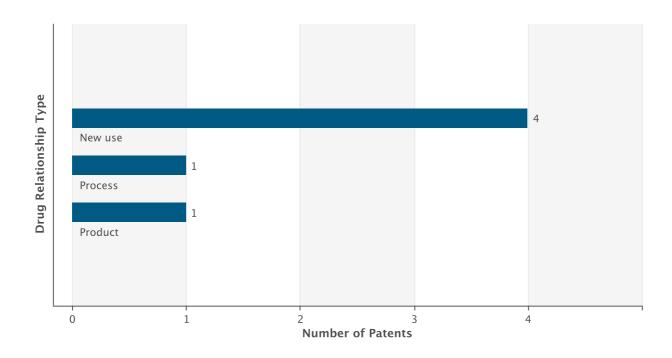
Chart displayed by Owner/Third Party



Patents by Parent Company Table

| Company Name | As Owner | As Third Party | Total |
|---|----------|----------------|-------|
| Valeant Pharmaceuticals International Inc | 4 | 1 | 5 |
| Hyperion Therapeutics Inc | 4 | 0 | 4 |
| Individual | 3 | 0 | 3 |
| Johns Hopkins University | 0 | 1 | 1 |
| Ministero dell `Universita` e della Ricerca Scientifica | 1 | 0 | 1 |

Patents by Drug Relationship Type Chart



Patents by Drug Relationship Type Table

| Drug Relationship | Total |
|-------------------|-------|
| New use | 4 |
| Process | 1 |
| Product | 1 |



sodium phenylacetate + sodium benzoate (hyperammonemia), Ucyclyd

sodium phenylacetate + sodium benzoate (hyperammonemia), Ucyclyd SNAPSHOT

| Drug Name | sodium phenylacetate + sodium benzoate (hyperammonemia), Ucyclyd |
|----------------------|---|
| Key Synonyms | Ammonul |
| Originator Company | Ucyclyd Pharma Inc |
| Active Companies | Hyperion Therapeutics Inc;Ucyclyd Pharma Inc |
| Inactive Companies | |
| Highest Status | Launched |
| Active Indications | Hepatic encephalopathy; Hyperammonemia |
| Target-based Actions | |
| Other Actions | Nitrogen metabolism modulator |
| Technologies | Drug combination;Intravenous formulation;Small molecule therapeutic |
| Last Change Date | 04-May-2013 |

sodium phenylacetate + sodium benzoate (hyperammonemia), Ucyclyd DEVELOPMENT PROFILE

SUMMARY

Ucyclyd Pharma (now part of Medicis (a subsidiary of Valeant)) has developed and launched Ammonul, a combination of sodium phenylacetate + sodium benzoate, as an ammonia scavenger for the iv treatment of hyperammonemia. Licensee Hyperion Therapeutics is developing the drug for the potential treatment of hepatic encephalopathy. In December 2007, Hyperion began a phase II trial in patients with hepatic encephalopathy which was expected to be completed in February 2009.

sodium phenylacetate + sodium benzoate (hyperammonemia), Ucyclyd DEVELOPMENT STATUS

CURRENT DEVELOPMENT STATUS

| Company | Indication | Country | Development Status | Date |
|---------------------------|------------------------|---------|---------------------------|-------------|
| Ucyclyd Pharma Inc | Hyperammonemia | US | Launched | 28-Aug-2007 |
| Hyperion Therapeutics Inc | Hepatic encephalopathy | US | Phase 2 Clinical | 31-Dec-2007 |

sodium phenylacetate + sodium benzoate (hyperammonemia), Ucyclyd CHEMICAL STRUCTURES

| CAS Registry Number: | Confidence Level: 2 |
|----------------------|---------------------|
| O- Na* | O' Na+ |
| Name | Туре |
| Ammonul | Trade Name |

| sodium phenylacetate + sodium benzoate | |
|--|-------------------|
| CAS Registry Number: | Confidence Level: |
| 65-85-0 | 2 |

| Name | Туре |
|--------------|------|
| benzoic acid | |

| CAS Registry Number: | Confidence Level: | |
|----------------------|-------------------|--|
| 103-82-2 | 2 | |
| | | |
| | | |
| | | |
| | | |
| | | |
| Name | Туре | |
| phenylacetic acid | | |



sodium phenylacetate + sodium benzoate (hyperammonemia), Ucyclyd DRUG NAMES

| Names | Туре |
|--|------------|
| sodium phenylacetate + sodium benzoate (hyperammonemia), Ucyclyd | |
| sodium phenylacetate + sodium benzoate | |
| Ammonul | Trade Name |

sodium phenylacetate + sodium benzoate (hyperammonemia), Ucyclyd CLINICAL TRIALS

Trials by Phase and Condition Studied

| | se 4 nical | | ise 3 nical | | se 2 nical | Phase 1 Clinical | | Phase Unspecified | | Total | |
|------------------------|---------------|--------------|----------------|--------------|---------------|---------------------|-----|----------------------|-----|--------------|-----|
| On- going | All | On- going | All | On- going | All | On- going | All | On- going | All | On- going | All |
| Hepatic encephalopathy | | | | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |

Total Trials by Phase and Status

| | se 4 nical | | se 3 nical | | se 2 nical | | se 1 nical | | ase ecified | То | tal |
|---------------------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|----------------|--------------|-----|
| On- going | All | On- going | All | On- going | All | On- going | All | On- going | All | On- going | All |
| Total by Phase and Status | | | | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |

Phase Definitions

Phase 3 Clinical

Includes Phase 3, Phase 3b, Phase 3a, Phase 2/3 (where enrolment count is 300 or over)

Phase 2 Clinical

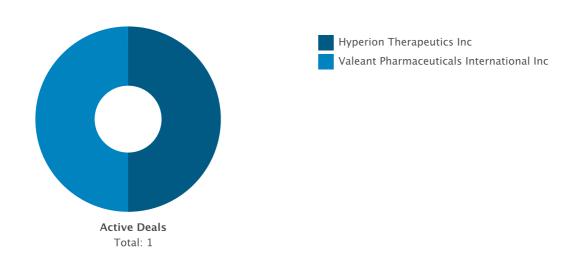
Includes Phase 2, Phase 2a, Phase 2b, Phase 1/2 (where enrolment count is 100 or over), Phase 2/3 (where enrolment count is under 300 or not specified)

Phase 1 Clinical

Includes Phase 1, Phase 1, Phase 1, Phase 1/2 (where enrolment count is under 100 or not specified), Phase 0

DEALS

Deals by Parent Company Chart



Deals by Parent Company Table

| Company Name | Principal Active Inactive | | Partner Active Inactive | | Total |
|---|---------------------------|---|-------------------------|---|-------|
| Valeant Pharmaceuticals International Inc | 1 | 0 | 0 | 0 | 1 |
| Hyperion Therapeutics Inc | 0 | 0 | 1 | 0 | 1 |

Deals by Type Chart



Deals by Type Table

| Deal Type | Active | Inactive | Total |
|--|--------|----------|-------|
| Drug - Development/Commercialization License | 1 | 0 | 1 |

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