

# **Galectin Therapeutics Inc**

# **CORTELLIS COMPANY DETAILED PIPELINE REPORT**

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

Publication Date: 06-Jan-2013

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# ABOUT CORTELLIS COMPANY DETAILED PIPELINE REPORT

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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i.e. where the development status for the drug(s) is one of the following: No Development Reported, Discontinued, or Withdrawn.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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# **Galectin Therapeutics Inc**

### COMPANY OVERVIEW

Company Name	Galectin Therapeutics Inc
Parent Company Name	Galectin Therapeutics Inc
Website	http://www.galectintherapeutics.com/
Country	US
Number of Drugs in Active Development	5
Number of Inactive Drugs	2
Number of Patents as Owner	16
Number of Patents as Third Party	1
Number of Deals	20
Key Indications	Liver fibrosis, Fibrosis, Cancer, Cholangiocarcinoma, Colorectal tumor, Non-alcoholic steatohepatitis, Stage IV melanoma, Mucositis
Key Target-based Actions	Galectin-3 inhibitor,Thymidylate synthase inhibitor,DNA polymerase inhibitor,Galectin inhibitor,Galectin modulator,Topoisomerase II inhibitor,Alphaactinin 1 modulator,Connective tissue growth factor ligand modulator,Endothelin receptor modulator,MMP2 gene modulator,MMP9 gene modulator,Metalloproteinase inhibitor-1 modulator,PDGF receptor modulator,Protein tyrosine kinase modulator,Synaptophysin modulator,TGF
Key Technologies	Small molecule therapeutic,Oligosaccharide,Drug combination,Biological therapeutic,Intravenous formulation,Antibody

# **COMPANY PROFILE**

### **SUMMARY**

Galectin Therapeutics Inc (previously Pro-Pharmaceuticals), founded in 2000 and based in Newton, MA, is an early-stage R&D company that identifies and develops existing therapeutics formulated with its novel carbohydrate conjugation technology designed to reduce toxicity and improve the efficacy. The company's technology targets sugar-specific binding sites on cancer cells. The company changed its name to Galectin Therapeutics in May 2011.

The company's business strategy is to expand the clinical applications of at least six chemotherapeutics (5-FU, doxorubicin, paclitaxel, cyclophosphamide, irinotecan and cisplatin) by combining them with carbohydrate-based compounds. Two platforms have been identified by Pro-Pharmaceuticals: CARBOSOME, which incorporates the carbohydrate molecule DAVANAT, used in the company's DAVANAT-1 product, and universal carbohydrate linker technology (UCLT), which includes development of Galactomycin. In September 2008, the company reallocated corporate resources to extend cash runway and operation fund into December 2008. The company aimed to focus on the NDA filing of DAVANAT-1, and had eliminated non-core expenses, including management compensation, legal, accounting, consulting, R&D and clinical trial expenses.

In December 2008, the company released three employees, including its President and Chief Scientist.

# **LOCATION**

In August 2012, the company announced relocation of corporate headquarters to Atlanta, Georgia, effective from October 1, 2012.

# **ACQUISITIONS AND SPIN OFFS**

Pro-Pharmaceuticals was taken over by Developed Technology Resources (DTR) in May 2001 but DTR paid a stock dividend of all of the shares of common stock (1,221,890 shares) of its wholly owned subsidiary, DTR-Med Pharma Corp, on a share for share basis, to shareholders of record on May 7, 2001 and the company was renamed Pro-Pharmaceuticals Inc. DTR was left as a shell company with no employees.

### LICENSING AGREEMENTS



In May 2008, at least two of BioCancell's tumor gene-targeting compounds, including BC-819, would be tested in combination with Pro-Pharmaceuticals' library of polysaccharide, targeted polymers, including DAVANAT.

In April 2007, Pro-Pharmaceuticals agreed to allow its carbohydrate technology to be investigated with Digna Biotech's compounds for chronic hepatitis C infection. The technology's ability to improve the delivery and activity of Digna's drugs was to be evaluated. Pro-Pharmaceuticals' DAVANAT would be the first carbohydrate to be evaluated.

### **EARLY R&D**

In May 2006, Pro-Pharmaceuticals and the Mount Sinai School of Medicine agreed to test the antifibrotic activity of Pro-Pharmaceuticals's carbohydrate compounds.

### **IP NEWS**

In March 2006, Pro-Pharmaceuticals was issued the patent US-07012068, which relates to the administration of a therapeutic agent to a cancer patient in a formulation to improve therapeutic efficacy, while reducing toxicity.

In August 2004, Pro-Pharmaceuticals was notified that patents for its modified pectin material had been granted in the EU, Canada, Australia and New Zealand. Later in August 2004, GlycoGenesys Inc clarified that it retained exclusive rights pursuant to its license with David Platt for both the Australian and New Zealand patents, which were issued in 2000 and 1999 respectively, as well as US Patent Application Number 08/819,356.

In November 2003, Pro-Pharmaceuticals was issued two US patents covering the company's core carbohydrate drug targeting technology and delivery platforms: 'Delivery of a therapeutic agent in a formulation for reduced toxicity' and 'Methods and compositions for reducing side effects in chemotherapeutic treatments'.

### **FINANCIAL**

In June 2012, Galectin was added to the Russell Microcap Index, effective at the close of equity markets on June 22, 2012.

In March 2012, Galectin planned to raise \$10.44 million from an underwritten public offering of 1,159,445 units priced at \$9 per unit and consisting of two common voting shares and one five-year warrant to buy one share of common stock. Warrants would be exercisable at \$5.63 per share. Underwriters would be granted a 45-day option to buy 173,916 additional units to cover overallotments. The offering was expected to close on March 28, 2012. The company also reported that as of March 23, 2012, its stock would begin trading on the NASDAQ Capital Market under the ticker symbol 'GALT' and would cease trading on the OTC Bulletin Board and as such the company had effected a 1-for-6 reverse stock split. In March 2012, underwriters fully exercised their overallotment option to purchase 173,916 units increasing the gross proceeds of the offering to \$12 million; later that month, the company sold a total of 2,666,722 shares of its common stock and related warrants to purchase 1,333,361 shares of common stock. The offering was closed, and the net proceeds were approximately \$10.5 million.

In June 2011, the company received approval from the Financial Industry Regulatory Authority to change its stock symbol from "PRWP" to "GALT".

In January 2011, the company raised gross proceeds of \$2.12 million from the sale of of its 212 series C preferred stock shares, priced at \$ 10,000 each, convertible into 212 million common stock shares. By November 2010, the company had raised cash proceeds of approximately \$1 million from the sale of 1.8 million common stock shares.

Later in November 2008, the company's Board approved the sale of common stock and warrants to shareholders and Pro-Pharmaceuticals filed an SEC registration statement for the rights offering to raise up to \$20 million. In December 2008, the company was completing the filings for the offering and expected to begin marketing the offering in January 2009. In February 2009, Pro-Pharmaceuticals filed an amended registration statement with the SEC for a \$2.5 million offering of rights to buy two shares. Later in February 2009, the company delayed the rights offering and closed the first \$1.8 million tranche of a \$6 million private placement of series B stock and warrants. In May 2009, a further \$0.9 million was closed as part of the transaction. In July 2009, Pro-Pharmaceuticals raised a further \$0.5 million from the private placement of 0.25 million series B convertible preferred stock, convertible into 1 million common stock shares, plus warrants to purchase 1.5 million common stock shares, worth up to \$6 million. At that time, the total raised was \$3.2 million. In August 2009, the company raised \$0.3 million from the sale of 150,000 series B-2 preferred stock shares and share-purchase warrants. In October 2009, Pro-Pharmaceuticals raised \$325,000 from the private placement of 162,500 series B convertible preferred stock, convertible into 650,000 common stock shares plus warrants to purchase 1,625,000 common stock shares. At that time, the total raised was \$3.8 million. In November 2009, Pro-Pharmaceuticals raised \$310,000 from the private placement of 155,000 series B-2 convertible preferred stock, convertible into 620,000 common stock shares, plus a Class A-1 and a Class A-2 warrant to purchase 310,000 shares and a Class B warrant to purchase 1,240,000 shares. At that time, the total raised was \$4.1 million. In December 2009, the company raised \$0.325 million from the private placement of 162,500 shares of series B-2 convertible preferred stock, convertible into 650,000 common stock shares, plus a Class A-1 and a Class A-2 warrant to purchase 325,000 shares and Class B warrants to purchase 1.3 million shares. At that time, the total raised was \$4.4 million. In February 2010, the company raised a further \$0.325 million from another tranche of the \$6 million private placement. A total of 162,500 shares of



series B-2 convertible preferred stock, convertible into 650,000 common stock shares, plus a Class A-1 and a Class A-2 warrant both exercisable to purchase 325,000 shares, and Class B warrants to purchase 1.3 million shares were sold bringing the total raised in the offering to date to \$4.7 million. In March 2010, the company raised a further \$0.335 million tranche of the \$6 million private placement of series B stock and warrants. A total of 167,500 shares of series B-2 convertible preferred stock, convertible into 670,000 common stock shares, plus a Class A-1 and a Class A-2 warrant, both exercisable to purchase 335,000 shares, and a Class B warrant to purchase 1.34 million shares were sold bringing the total raised in the offering to approximately \$5.1 million. In April 2010, the company raised a further \$0.31 million from another tranche of the \$6 million private placement. A total of 155,000 shares of series B-2 preferred stock, convertible into 620,000 common stock shares, plus a Class A-1 and a Class A-2 warrants, both exercisable to purchase 0.31 million shares of common stock and a Class B warrant to purchase 1.24 million shares were sold bringing the total raised to \$5.4 million. In May 2010, Pro-Pharmaceuticals closed a \$570,000 final tranche (comprising 285,000 Series B-2 convertible preferred stock, a Class A-1 and a Class A-2 warrant and a Class B warrant) of the \$6 million private placement of unregistered Series B convertible preferred stock and warrants.

In November 2008, the company recieved delisting notice from NYSE Alternext US due to non-compliance with minimum stockholders' equity listing requirements. At that time, the company had appealed to the decision and requested a hearing before the panel. In December 2008, the company met with the NYSE to appeal the decision. Later that month, the exchange notified the company that it had denied its appeal and would begin the delisting process. At that time, the company anticipated that its shares would be listed for quotation on the Over-the-Counter Bulletin Board or another market and had begun the OTCBB listing process.

In February 2008, Pro-Pharmaceuticals signed definitive agreements to raise \$3.78 million from the sale of 7.55 million shares priced at \$0.50 each, warrants to buy 7.55 million shares for \$0.70 each, and warrants to buy 3.02 million shares for \$0.67 each. The company closed the \$3.5 million transaction later that month.

In June 2007, the AMEX notified the company that it was not in compliance with the exchanges minimum stockholder equity of \$2 million requirement and had reported losses from continuing operations. In July 2007, a securities purchase agreement between Pro-Pharmaceuticals and investors was terminated following AMEX's non-compliance notice. Later that month, the company submitted its plan to regain compliance to AMEX. In September 2007, AMEX had granted the company an extension until October 13, 2008 to regain compliance with the listing standards. In May 2008, AMEX notified Pro-Pharmaceuticals that it was not in compliance with its minimum stockholder equity of \$4 million requirement. The company planned to file a revised plan to regain compliance by June 13, 2008. In August 2008, AMEX accepted Pro-Pharmaceuticals' revised compliance plan.

Also in June 2007, Pro Pharmaceuticals raised \$2.7 million from the sale of 4,173,000 shares. The company also had the option to purchase 4,173,000 shares at \$0.80 each, exercisable for seven years.

In March 2007, holders of Pro-Pharmaceuticals' 7% convertible debentures agreed to convert \$3.9 million of the debentures into 5.2 million shares At that time, the exercise price of the warrants was cut to \$1.00. In February 2006, Pro-Pharmaceuticals raised \$10 million from a private placement of convertible debentures and common stock purchase warrants. The debentures were convertible into Pro-Pharmaceuticals shares at \$3.35 each, and carried a 7% interest rate. They would mature on January 01, 2008, and be redeemed in 18 monthly payments, beginning August 01, 2006. The 5-year warrants allowed the purchase of up to 1.5 million shares for \$3.35 each.

In June 2005, Pro-Pharmaceuticals was added to the Russell Microcap Index.

In August 2004, Pro-Pharmaceuticals raised gross proceeds of \$6 million through a private placement of approximately 2 million shares of newly issued common stock, at \$3 each, to new and existing institutional investors. The investors were also to receive 5-year warrants to purchase a further two million shares at \$4.20 each. ImmunoGen planned to use the proceeds from this placement for general corporate purposes, including R&D and clinical trials.

In April 2004, Pro-Pharmaceuticals raised gross proceeds of \$4.5 million through the private placement of 1.25 million shares of common stock. Investors also received 5-year warrants to purchase 0.625 million shares of common stock. The proceeds from the transaction were to be used to fund ongoing operations, including clinical trials and R&D.

In October 2003, Pro-Pharmaceuticals raised \$4.6 million through the private placement of 1.3 million newly issued shares of common stock. Investors also received 5-year warrants to purchase 650,000 shares of common stock.

In September 2003, Pro-Pharmaceuticals Inc began trading its common stock on the American Stock Exchange under the new trading symbol 'PRW'.

In January 2003, Pro-Pharmaceuticals completed a private placement resulting in gross proceeds exceeding \$3.9 million. Funds were to be used primarily for the company's clinical trials as well as for preclinical development of Galactomycin.

In September 2002, Pro-Pharmaceuticals began trading on the OTC Bulletin Board under the symbol PROH. 1.3 million shares were available to trade at this time. Approximately 14.5 million additional Pro-Pharmaceuticals shares, either held by company Directors and officers or distributed in private stock placements in 2001 and 2002, were restricted from immediate trading by securities law.

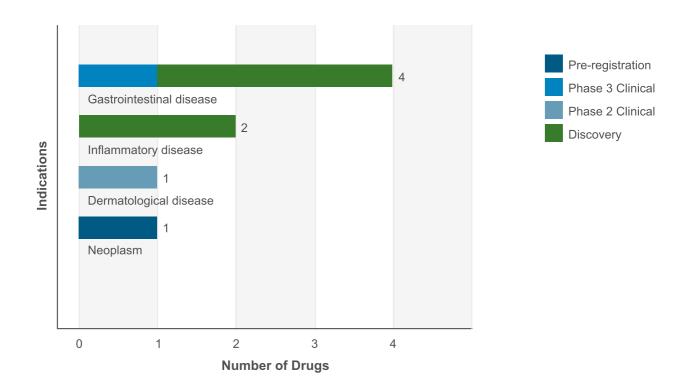


# PRODUCT PORTFOLIO SUMMARY

# **DRUGS**

# Drugs by Indication

Active Drugs by Indication Chart



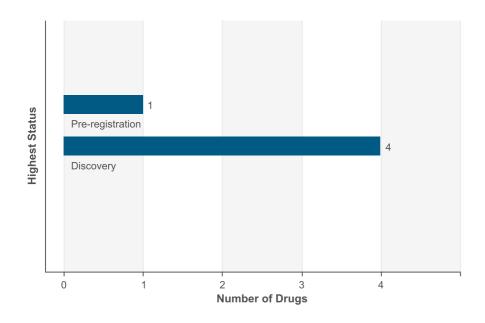
# Drugs by Indication Table

Indication	Active	Inactive	Total
Gastrointestinal disease	4	0	4
Inflammatory disease	2	0	2
Neoplasm	1	1	2
Dermatological disease	1	0	1
Infectious disease	0	1	1



# **Drugs by Highest Status**

Active Drugs by Highest Status Chart



# Drugs by Highest Status Table

Development Status	Number of Drugs
Pre-registration	1
Discovery	4
No Development Reported	2

# **DEALS**

Deal Type	Prir	cipal	Pai	tner	Total
	Active	Inactive	Active	Inactive	
Technology - Other Proprietary	1	0	1	0	2
Drug - Funding	1	0	0	0	1
Drug - Screening/Evaluation	0	0	1	0	1
Drug - Early Research/Development	0	0	3	0	3
Drug - Commercialization License	2	0	1	0	4
Drug - Manufacturing/Supply	0	0	3	0	3
Drug - Development Services	0	0	6	0	6



# **CLINICAL TRIALS**

# Trials by Condition Studied

Condition Studied	Ongoing	All
Neoplasm	0	6
Gastrointestinal disease	0	5
Respiratory disease	0	1
Gynecology and obstetrics	0	1
Dermatological disease	0	1
Endocrine disease	0	1
Genitourinary disease	0	1
Andrology	0	1

# Trials by Phase

Phase	Ongoing	All
Phase 3	0	1
Phase 2	0	3
Phase 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

# **PATENTS** \*

Indication	As Owner	As Third Party	Total
Immune disorder	1	0	1
Psychiatric disorder	2	0	2
Neoplasm	13	1	14
Metabolic disorder	3	0	3
Neurological disease	1	0	1
Degeneration	1	0	1



Andrology	4	1	5
Cardiovascular disease	3	0	3
Endocrine disease	5	0	5
Genitourinary disease	4	1	5
Dermatological disease	6	0	6
Ulcer	1	0	1
Gastrointestinal disease	6	0	6
Hematological disease	5	0	5
Musculoskeletal disease	1	0	1
Respiratory disease	5	0	5
Infectious disease	2	0	2
Inflammatory disease	5	0	5
Gynecology and obstetrics	5	0	5

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

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# PRODUCT PORTFOLIO DRUG PIPELINE DETAIL

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

### GM-CT-01

### **GM-CT-01 SNAPSHOT**

Drug Name	GM-CT-01
Key Synonyms	
Originator Company	Galectin Therapeutics Inc
Active Companies	Galectin Therapeutics Inc
Inactive Companies	
Highest Status	Pre-registration
Active Indications	Stage IV melanoma;Cancer;Colorectal tumor;Cholangiocarcinoma;Liver fibrosis
Target-based Actions	Galectin inhibitor;Thymidylate synthase inhibitor
Other Actions	Folate synthesis inhibitor;Anticancer;Anticancer chemosensitizer;RNA synthesis inhibitor
Technologies	Biological therapeutic;Oligosaccharide;Drug combination;Intravenous formulation
Last Change Date	30-Nov-2012

# **GM-CT-01 DEVELOPMENT PROFILE**

### **SUMMARY**

Galectin Therapeutics (previously known as Pro-Pharmaceuticals) has developed GM-CT-01 (DAVANAT), a galactomannan-derived, galectin-targeting polysaccharide, to 'Glyco-Upgrade' the safety and efficacy of established anticancer agents, for the iv combination treatment of cancer. In June 2007, the company began submitting data under the FDA regulation 505 (b)(2) for the approval GM-CT-01 administered with irinotecan for cancer. By August 2008, the company had filed a Drug Master File for GM-CT-01 administered with 5-fluorouracil (5-FU) (as DAVANAT-1) for colorectal cancer—under the 505(b)(2) route; however, in January 2009, the FDA requested a phase III colorectal cancer trial before the drug could be approved. In January 2011, the company received positive feedback on the phase III trial protocol from the FDA, and at that time, drug approval in Colombia was expected in 2011. In December 2011, the company planned not to further expend its—resources towards the US approval. By March 2006, a phase II trial was underway for cholangiocarcinoma; in September 2008, the trial was halted as the company planned to focus its corporate resources on an NDA filing for colorectal cancer. In August 2011, the drug was listed as being in preclinical development for liver fibrosis. In February 2007, Pro-Pharmaceuticals was seeking to outlicense the program; by May 2009, the company was in discussions with pharmaceutical companies, Middle East and Korean distributors, and South American partners.



In November 2011, The Ludwig Institute of Cancer Research and the cliniques Universitaires Saint-Luc Cancer Center in Brussels planned to initiate a phase I/II trial late of GM-CT-01 in combination with their cancer vaccine in 2011 or early 2012 for metastatic melanoma. By March 2007, drugs listed on the company website as being targeted for co-administrative upgrade with GM-CT-01 were doxorubicin, paclitaxel, oxaliplatin, cisplatin and bevacizumab. By December 2007, the company was evaluating GM-CT-01 for co-administration with various chemotherapy drugs using technologies at the University of Massachusetts Lowell (UML). In December 2011, the company planned a phase I/II trial of GM-CT-01 in combination with MAGE-3.A1 or NA17.A2 in patients with metatstatic melanoma. At that time, the trial was approved by the Belgian Federal Agency of Medicine and Health Products (FAMHP), and enrollment was slated for early 2012. By May 2012, the trial was underway.

### **GM-CT-01 DEVELOPMENT STATUS**

# **CURRENT DEVELOPMENT STATUS**

Company	Indication	Country	<b>Development Status</b>	Date
Galectin Therapeutics Inc	Cancer	US	Pre-registration	16-May-2005
Galectin Therapeutics Inc	Colorectal tumor	Western Europe	Phase 3 Clinical	10-Mar-2006
Galectin Therapeutics Inc	Cholangiocarcinoma	US	Phase 2 Clinical	10-Mar-2006
Galectin Therapeutics Inc	Colorectal tumor	Israel	Phase 2 Clinical	13-Dec-2005
Galectin Therapeutics Inc	Colorectal tumor	US	Phase 2 Clinical	04-Oct-2004
Galectin Therapeutics Inc	Stage IV melanoma	Belgium	Phase 2 Clinical	11-May-2012
Galectin Therapeutics Inc	Stage IV melanoma	Luxembourg	Phase 2 Clinical	11-May-2012
Galectin Therapeutics Inc	Liver fibrosis	US	Discovery	15-Aug-2011

# **GM-CT-01 DRUG NAMES**

Names	Туре
DAVANAT	
DAVANAT-1	
DAVANAT-5fluorouracil, Pro-Pharmaceuticals	
GM-CT-01	
DAVANAT-5FU, Pro-Pharmaceuticals	

# **GM-CT-01 CLINICAL TRIALS**

Trials by Phase and Condition Studied

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	ise 4 nical		se 3 nical		se 2 lical		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
Colorecta	al tumor										
0	0	0	1	0	2	0	1	0	0	0	4
Stage IV	melanoma	a									
0	0	0	0	0	0	1	2	0	0	1	2
Prostate	tumor										
0	0	0	0	0	0	0	1	0	0	0	1
Breast tu	mor										
0	0	0	0	0	0	0	1	0	0	0	1
Metastas	sis										
0	0	0	1	0	0	0	0	0	0	0	1
Lung tun	nor										
0	0	0	0	0	0	0	1	0	0	0	1
Cholangi	ocarcinom	a									
0	0	0	0	0	1	0	0	0	0	0	1
Pancrea	s tumor										
0	0	0	0	0	0	0	1	0	0	0	1
Liver tum	nor										
0	0	0	0	0	0	0	1	0	0	0	1
Head an	d neck tum	nor									
0	0	0	0	0	0	0	1	0	0	0	1
Gallblade	der tumor										
0	0	0	0	0	1	0	0	0	0	0	1
Ovary tu	mor										
0	0	0	0	0	0	0	1	0	0	0	1



# Total Trials by Phase and Status

	se 4 lical		se 3 nical		se 2 nical		se 1 nical		ase ecified	То	tal
On- going	All	On- going	All								
Total by	Phase an	d Status									
0	0	0	1	0	3	1	3	0	0	1	7

### **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

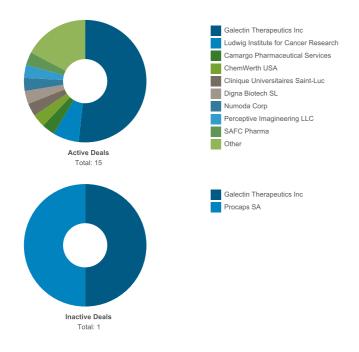
Includes Phase 2, Phase 2a, Phase 2b, Phase 1/2 (where enrolment count is 100 or over), Phase 2/3 (where enrolment count is under 300 or not specified)

### Phase 1 Clinical

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

### **GM-CT-01 DEALS AND PATENTS**

# DEALS Deals by Parent Company Chart



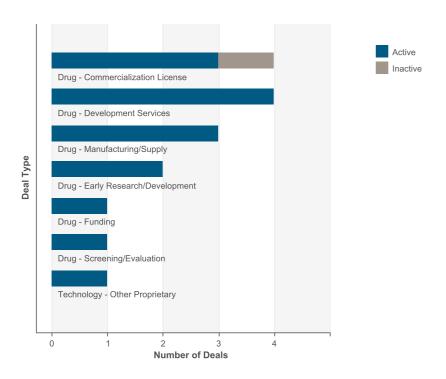
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# **Deals by Parent Company Table**

Company Name	<b>Prin</b> Active	<b>cipal</b> Inactive	<b>Par</b> Active	tner Inactive	Total
Galectin Therapeutics Inc	3	1	12	0	16
Ludwig Institute for Cancer Research	2	0	0	0	2
Camargo Pharmaceutical Services	1	0	0	0	1
Clinique Universitaires Saint-Luc	1	0	0	0	1
Perceptive Imagineering LLC	1	0	0	0	1
SAFC Pharma	1	0	0	0	1
Digna Biotech SL	1	0	0	0	1
YIACO Medical Co	0	0	1	0	1
Sigma-Aldrich Corp	1	0	0	0	1
ChemWerth USA	1	0	0	0	1
US Government	0	0	1	0	1
Sanghyon Chemical Corp	0	0	1	0	1
University of Massachusetts	1	0	0	0	1
Procaps SA	0	0	0	1	1
Numoda Corp	1	0	0	0	1



# **Deals by Type Chart**



# **Deals by Type Table**

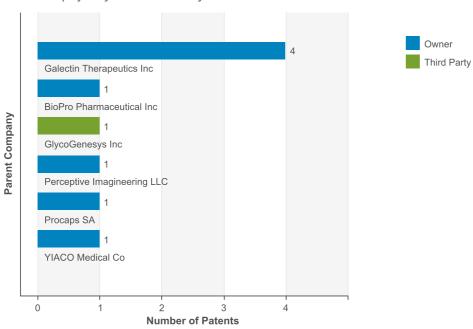
Deal Type	Active	Inactive	Total
Drug - Development Services	4	0	4
Drug - Commercialization License	3	1	4
Drug - Manufacturing/Supply	3	0	3
Drug - Early Research/Development	2	0	2
Technology - Other Proprietary	1	0	1
Drug - Screening/Evaluation	1	0	1
Drug - Funding	1	0	1



# **PATENTS**

# **Patents by Parent Company Chart**

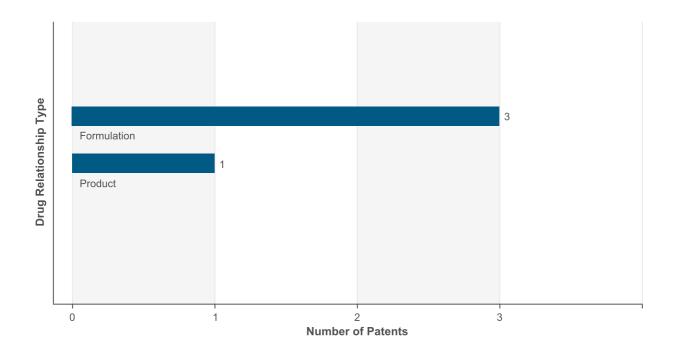
Chart displayed by Owner/Third Party



# **Patents by Parent Company Table**

Company Name	As Owner	As Third Party	Total
Galectin Therapeutics Inc	4	0	4
Perceptive Imagineering LLC	1	0	1
Procaps SA	1	0	1
YIACO Medical Co	1	0	1
GlycoGenesys Inc	0	1	1
BioPro Pharmaceutical Inc	1	0	1

# **Patents by Drug Relationship Type Chart**



# **Patents by Drug Relationship Type Table**

Drug Relationship	Total
Formulation	3
Product	1

# **GR-MD-02**

### **GR-MD-02 SNAPSHOT**

Drug Name	GR-MD-02
Key Synonyms	
Originator Company	Galectin Therapeutics Inc
Active Companies	Galectin Therapeutics Inc
Inactive Companies	
Highest Status	Discovery
Active Indications	Liver fibrosis; Non-alcoholic steatohepatitis
Target-based Actions	Galectin-3 inhibitor
Other Actions	Anti-inflammatory
Technologies	Small molecule therapeutic;Oligosaccharide
Last Change Date	30-Nov-2012

# **GR-MD-02 DEVELOPMENT PROFILE**

# **SUMMARY**

Galectin Therapeutics is investigating GR-MD-02, a galactomannan-derived, galectin-3-targeting polysaccharide, for the potential treatment of liver fibrosis and non-alcoholic steatohepatitis (NASH),. In May 2012, the company planned to initiate a phase I trial planned in NASH and fibrosis for early 2013. In November 2012, an IND was planned to be submitted in January 2013, and a phase II trial was planned to begin in early 2014 with expected top-line results by the end of 2014 or early 2015.

# **GR-MD-02 DEVELOPMENT STATUS**

# **CURRENT DEVELOPMENT STATUS**

Company	Indication	Country	<b>Development Status</b>	Date
Galectin Therapeutics Inc	Liver fibrosis	US	Discovery	12-Aug-2011
Galectin Therapeutics Inc	Non-alcoholic steatohepatitis	US	Discovery	16-Dec-2011

### **GR-MD-02 DRUG NAMES**

Names	Туре
GR-MD-02	Research Code



# **PRO-GR-300**

### **PRO-GR-300 SNAPSHOT**

Drug Name	PRO-GR-300
Key Synonyms	
Originator Company	Galectin Therapeutics Inc
Active Companies	Galectin Therapeutics Inc
Inactive Companies	
Highest Status	Discovery
Active Indications	Fibrosis
Target-based Actions	Galectin modulator
Other Actions	Collagen synthesis inhibitor
Technologies	Small molecule therapeutic;Oligosaccharide
Last Change Date	22-Jul-2011

# **PRO-GR-300 DEVELOPMENT PROFILE**

# **SUMMARY**

Galectin Therapeutics (previously known as Pro-Pharmaceuticals) is investigating PRO-GR-300, a galectin modulator and the lead from a series of carbohydrate compounds, for the potential treatment of liver fibrosis,. In October 2007, positive preclinical data were presented. At that time, further studies were planned. In June 2010, the company was planning to file an IND for PRO-GR-300 for liver fibrosis.

# **PRO-GR-300 DEVELOPMENT STATUS**

# **CURRENT DEVELOPMENT STATUS**

Company	Indication	Country	<b>Development Status</b>	Date
Galectin Therapeutics Inc	Fibrosis	US	Discovery	24-May-2006

# **PRO-GR-300 DRUG NAMES**

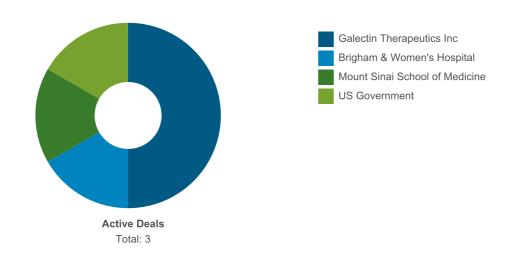
Names	Туре
PRO-GR-300	Research Code
carbohydrate compounds (fibrosis), Pro- Pharmaceuticals	
galectin modulator (carbohydrate compounds, fibrosis), Galectin	



# **PRO-GR-300 DEALS AND PATENTS**

DEALS

Deals by Parent Company Chart

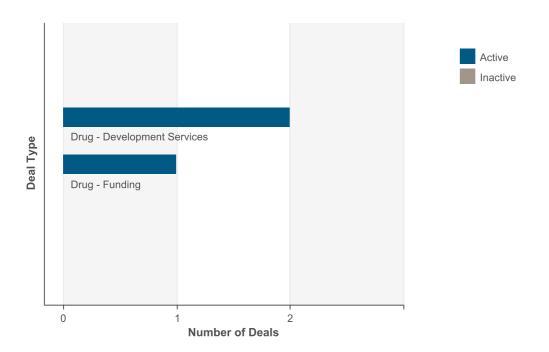


# **Deals by Parent Company Table**

Company Name	<b>Prin</b> Active	cipal Inactive		tner Inactive	Total
Galectin Therapeutics Inc	1	0	2	0	3
Mount Sinai School of Medicine	1	0	0	0	1
US Government	0	0	1	0	1
Brigham & Women's Hospital	1	0	0	0	1



# **Deals by Type Chart**



# **Deals by Type Table**

Deal Type	Active	Inactive	Total
Drug - Development Services	2	0	2
Drug - Funding	1	0	1

# **GM-MD-01**

### **GM-MD-01 SNAPSHOT**

Drug Name	GM-MD-01
Key Synonyms	
Originator Company	Galectin Therapeutics Inc
Active Companies	Galectin Therapeutics Inc
Inactive Companies	
Highest Status	Discovery
Active Indications	Liver fibrosis
Target-based Actions	Galectin-3 inhibitor
Other Actions	Anti-inflammatory
Technologies	Small molecule therapeutic;Oligosaccharide
Last Change Date	15-Aug-2011

# **GM-MD-01 DEVELOPMENT PROFILE**

# **SUMMARY**

Galectin Therapeutics is investigating GM-MD-01, a galactomannan-derived, galectin-3-targeting polysaccharide, for the potential treatment of liver fibrosis

# **GM-MD-01 DEVELOPMENT STATUS**

### **CURRENT DEVELOPMENT STATUS**

Company	Indication	Country	<b>Development Status</b>	Date
Galectin Therapeutics Inc	Liver fibrosis	US	Discovery	15-Aug-2011

# **GM-MD-01 DRUG NAMES**

Names	Туре
GM-MD-01	Research Code



# **GM-CT-02**

### **GM-CT-02 SNAPSHOT**

Drug Name	GM-CT-02
Key Synonyms	
Originator Company	Galectin Therapeutics Inc
Active Companies	Galectin Therapeutics Inc
Inactive Companies	
Highest Status	Discovery
Active Indications	Liver fibrosis
Target-based Actions	Galectin-3 inhibitor
Other Actions	Anti-inflammatory
Technologies	Small molecule therapeutic;Oligosaccharide
Last Change Date	13-Aug-2012

# **GM-CT-02 DEVELOPMENT PROFILE**

# **SUMMARY**

Galectin Therapeutics is investigating GM-CT-02, a galactomannan-derived, galectin-3-targeting polysaccharide, for the potential treatment of liver fibrosis. In August 2011, the drug was listed as being in preclinical development.

# **GM-CT-02 DEVELOPMENT STATUS**

# **CURRENT DEVELOPMENT STATUS**

Company	Indication	Country	<b>Development Status</b>	Date
Galectin Therapeutics Inc	Liver fibrosis	US	Discovery	15-Aug-2011

# **GM-CT-02 DRUG NAMES**

Names	Туре
GM-CT-02	Research Code



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