

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i.e. where the development status for the drug(s) is one of the following: No Development Reported, Discontinued, or Withdrawn.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

## COMPANY OVERVIEW

<b>Company Name</b>	Proteon Therapeutics Inc
<b>Parent Company Name</b>	Proteon Therapeutics Inc
<b>Website</b>	<a href="http://www.proteontherapeutics.com/">http://www.proteontherapeutics.com/</a>
<b>Country</b>	US
<b>Number of Drugs in Active Development</b>	1
<b>Number of Inactive Drugs</b>	0
<b>Number of Patents as Owner</b>	3
<b>Number of Patents as Third Party</b>	0
<b>Number of Deals</b>	2
<b>Key Indications</b>	Kidney dialysis, Peripheral vascular disease, Cardiovascular disease, Renal disease, Vasospasm
<b>Key Target-based Actions</b>	Elastase stimulator, Elastase modulator
<b>Key Technologies</b>	Biological therapeutic, Local formulation unspecified, Recombinant enzyme, Transdermal formulation, Biochemical synthesis, Cell culture technique, Formulation, Freeze drying, Polynucleotide sequence, Protein recombinant, Vector expression

## COMPANY PROFILE

### SUMMARY

Proteon Therapeutics Inc is a privately-held biopharmaceutical company that develops pharmaceuticals for renal and vascular diseases.

### IP NEWS

In March 2008, Proteon announced that the EPO had issued WO-0121574 (EP-01220830) which covered the use of elastases (including PRT-201) for dilating arteries and veins.

### ACQUISITIONS & SPIN-OFFS

In March 2009, Proteon entered into an agreement offering Novartis an exclusive option to acquire Proteon following the successful completion of a phase II trial of PRT-201 and a secondary right to a global license. The deal would be worth up to \$550 million including an initial acquisition payment plus regulatory milestone payments.

### FINANCIAL

In October 2014, the company announced an IPO of 6.11 million shares at \$10.00 each that begun trading on the NASDAQ Global Market under the ticker symbol 'PRTO' from October 22, 2014. The underwriters were granted a 30-day option to purchase up to 916,500 additional shares. At that time, the offering was expected to close on October 27, 2014.

In May 2014, the company raised \$45 million in a series D equity financing including a \$25 million tranche.

In March 2009, Proteon closed a \$38 million series B financing round led by MPM Capital. In May 2009, the company raised an additional \$12 million from a second closing of the series B financing round.

In September 2007, Proteon raised \$12 million from a financing round. The company planned to use the proceeds to fund development of PRT-201.

In March 2006, Proteon raised \$19 million in a series A venture capital round to fund development of its PRT-201 vascular dilation drug.

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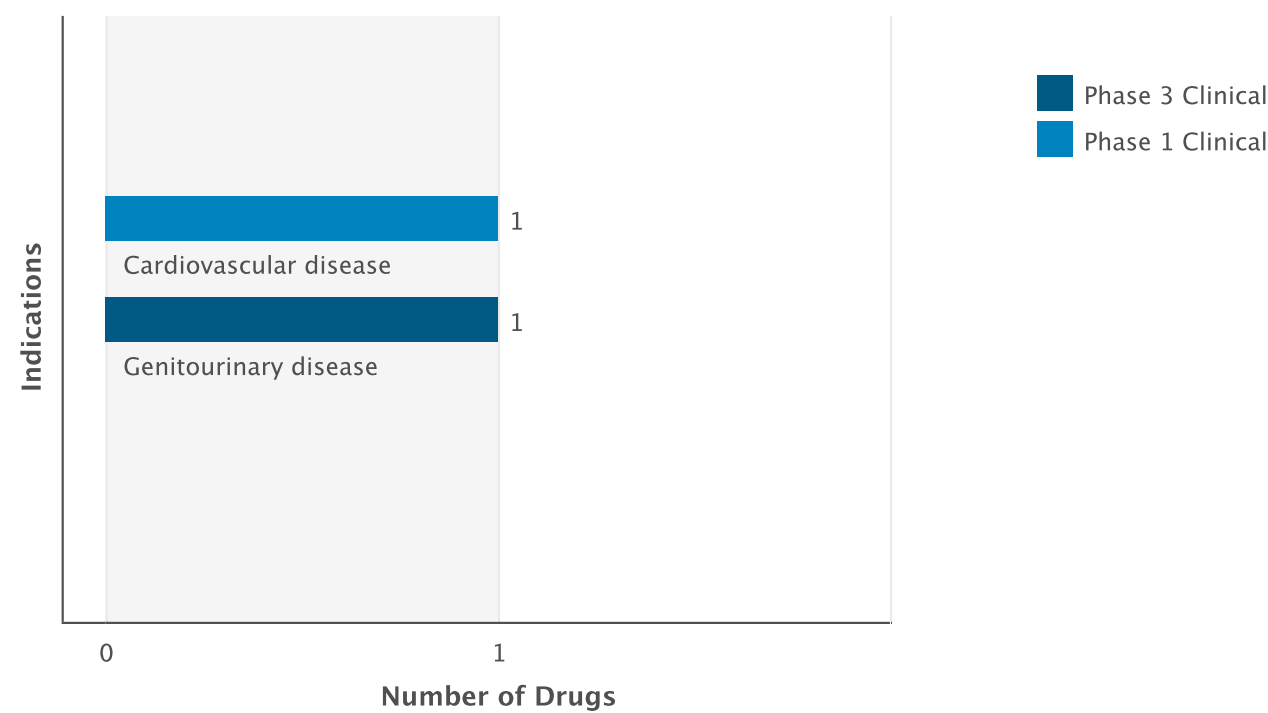


# PRODUCT PORTFOLIO SUMMARY

## DRUGS

### Drugs by Indication

Active Drugs by Indication Chart



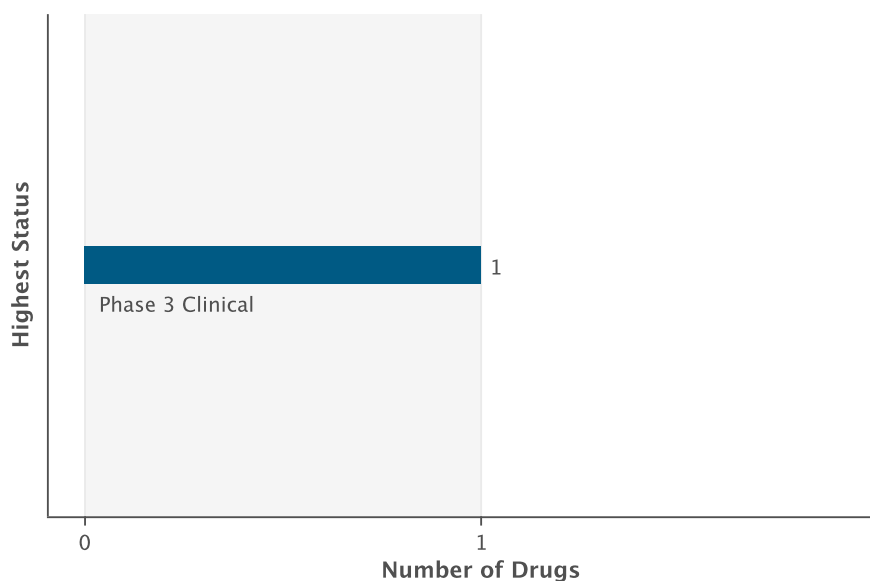
Drugs by Indication Table

Indication	Active	Inactive	Total
Cardiovascular disease	1	0	1
Genitourinary disease	1	0	1

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## Drugs by Highest Status

Active Drugs by Highest Status Chart



Drugs by Highest Status Table

Development Status	Number of Drugs
Phase 3 Clinical	1

## DEALS

Deal Type	Principal		Partner		Total
	Active	Inactive	Active	Inactive	
Drug - Development/Commercialization License	1	0	0	0	1
Drug - Manufacturing/Supply	0	0	1	0	1

## CLINICAL TRIALS

Trials by Condition Studied

Condition Studied	Ongoing	All
Genitourinary disease	1	3
Cardiovascular disease	1	3

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## Trials by Phase

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

### 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
Cardiovascular disease	4	0	4
Gastrointestinal disease	1	0	1
Genitourinary 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.

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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

### PRT-201

#### PRT-201 SNAPSHOT

<b>Drug Name</b>	PRT-201
<b>Key Synonyms</b>	vonapanitase
<b>Originator Company</b>	Proteon Therapeutics Inc
<b>Active Companies</b>	Proteon Therapeutics Inc
<b>Inactive Companies</b>	
<b>Highest Status</b>	Phase 3 Clinical
<b>Active Indications</b>	Peripheral vascular disease;Kidney dialysis
<b>Target-based Actions</b>	Elastase stimulator
<b>Other Actions</b>	Vasodilator
<b>Technologies</b>	Transdermal formulation;Biological therapeutic;Local formulation unspecified;Recombinant enzyme
<b>Last Change Date</b>	07-Aug-2014

#### PRT-201 DEVELOPMENT PROFILE

##### SUMMARY

Proteon Therapeutics is developing PRT-201 (PROT-201; presumed to be vonapanitase), a recombinant human type I pancreatic elastase produced in *Pichia pastoris*, for local topical use as a vasodilator to modify the extracellular matrix to potentially improve outcomes from hemodialysis and peripheral artery disease (PAD),,,. In July 2014, the first patient was treated in a phase III trial in patients, immediately after radiocephalic arteriovenous fistula (AVF) creation with chronic kidney disease (CKD). In October 2012, a phase I study was initiated in patients with PAD ; in July 2014, enrollment was ongoing.

#### PRT-201 DEVELOPMENT STATUS

##### CURRENT DEVELOPMENT STATUS

Company	Indication	Country	Development Status	Date
Proteon Therapeutics Inc	Kidney dialysis	US	Phase 3 Clinical	17-Jul-2014
Proteon Therapeutics Inc	Peripheral vascular disease	US	Phase 1 Clinical	15-Oct-2012
Proteon Therapeutics Inc	Kidney dialysis	EU	Discovery	05-Nov-2013

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## PRT-201 DRUG NAMES

Names	Type
PRT-201	Research Code
PROT-201	Research Code
vasodilation agent (vascular surgery, hemodialysis), Proteon	
vonapanitase	PINN

## PRT-201 CLINICAL TRIALS

### Trials by Phase and Condition Studied

Phase 4 Clinical		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
Peripheral arterial occlusive disease											
0	0	0	0	0	1	0	1	0	0	0	2
Renal disease											
0	0	0	0	0	0	0	2	0	0	0	2
Peripheral vascular disease											
0	0	0	0	0	0	1	1	0	0	1	1
End stage renal disease											
0	0	1	1	0	0	0	0	0	0	1	1

### Total Trials by Phase and Status

Phase 4 Clinical		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	1	1	0	1	1	3	0	0	2	5

### 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)

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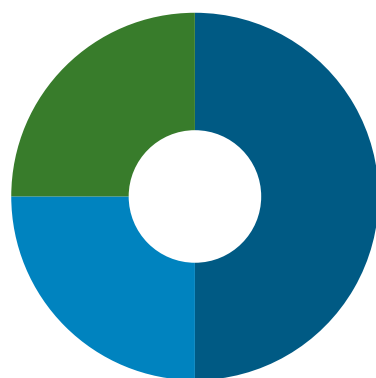
## Phase 1 Clinical

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

## PRT-201 DEALS AND PATENTS

### DEALS

#### Deals by Parent Company Chart



#### Deals by Parent Company Table

Company Name	Principal		Partner		Total
	Active	Inactive	Active	Inactive	
Proteon Therapeutics Inc	1	0	1	0	2
Novartis AG	0	0	1	0	1
QSV Biologics	1	0	0	0	1

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Deals by Type Chart



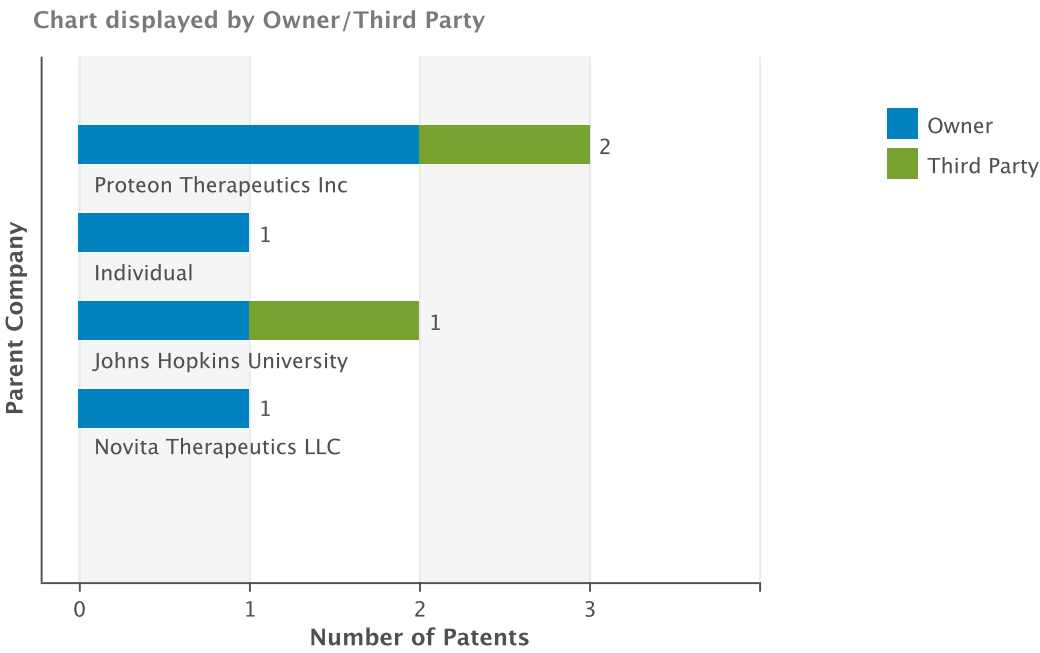
Deals by Type Table

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

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PATENTS

Patents by Parent Company Chart

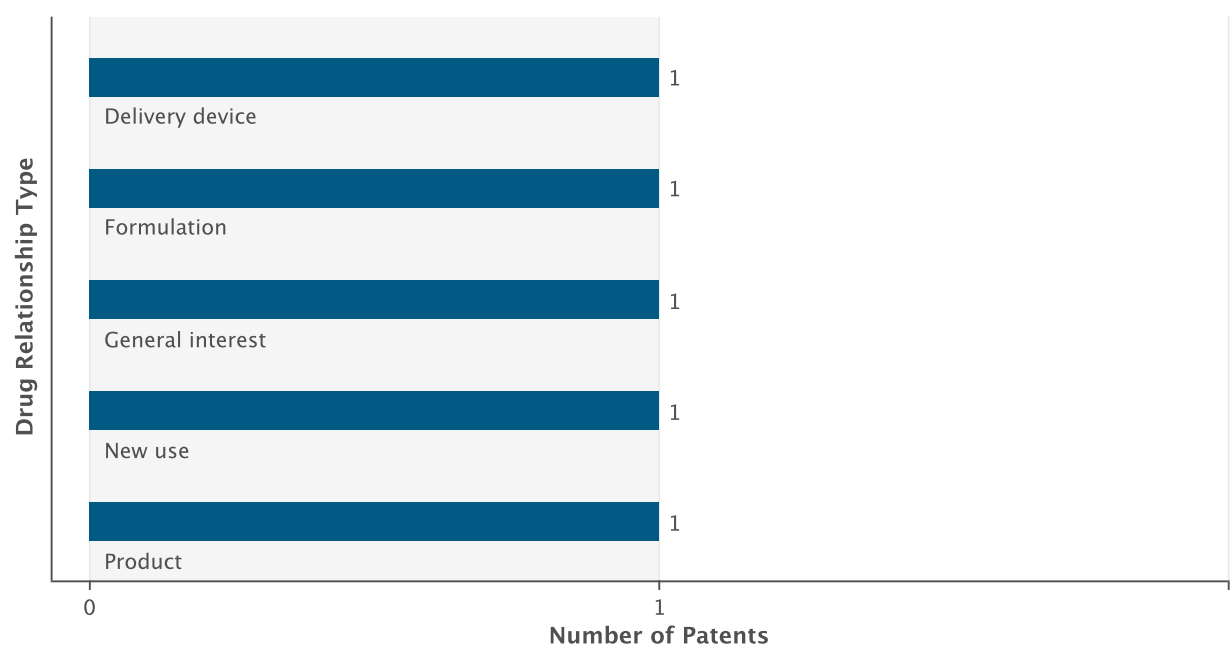


Patents by Parent Company Table

Company Name	As Owner	As Third Party	Total
Proteon Therapeutics Inc	2	1	2
Novita Therapeutics LLC	1	0	1
Johns Hopkins University	1	1	1
Individual	1	0	1

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Patents by Drug Relationship Type Chart



Patents by Drug Relationship Type Table

Drug Relationship	Total
Product	1
General interest	1
Formulation	1
New use	1
Delivery device	1

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