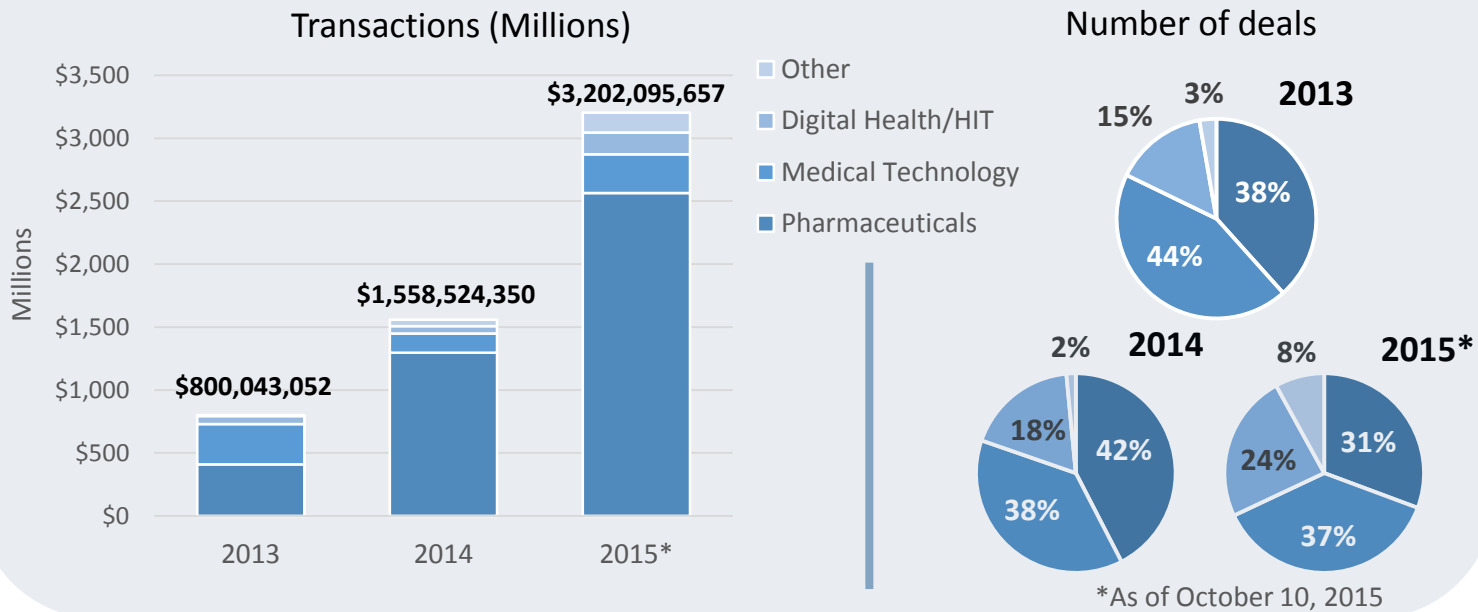


A monthly report summarizing the Life Science transactions and trends in Washington State.

Washington State Transactions

Washington State Transactions by Industry



News highlights:

- Cardiac Insight, Inc. acquired Cardea Associates, Inc., a company dedicated to cardiovascular research and product innovation. CardeaScreen™, developed and produced by Cardea, is a proprietary, handheld 12-lead ECG device and software that provides a major breakthrough to improve the reliability of the ECG for the identification of cardiovascular issues associated with sudden cardiac arrest (SCA) in young athletes.
- 3M Drug Delivery Systems (3M) and Impel NeuroPharma Inc (Impel) announced a strategic alliance aimed at advancing Impel's revolutionary Precision Olfactory Delivery (POD) technology for the enhanced Central Nervous System (CNS) delivery of drug products.
- Cyrus Biotechnology licensed advanced biochemistry software from Indiana University to commercialize their SparksX software package combined with Rosetta.
- OncoResponse, an immuno-oncology antibody discovery company, has been launched jointly by The University of Texas MD Anderson Cancer Center and Theraclone Sciences, of Seattle, Washington. The new Houston-based company announced the closing of a \$9.5 million Series A financing co-led by ARCH Venture Partners, Canaan Partners and MD Anderson.

Deal highlights:

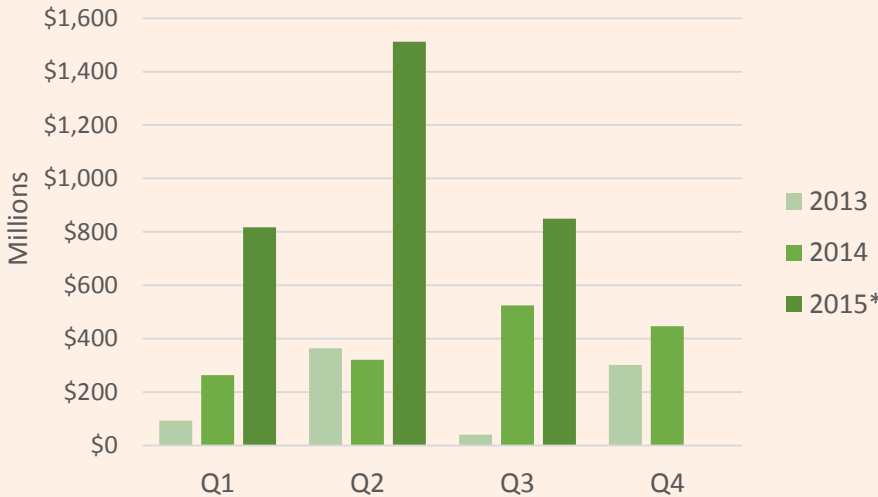
- **Kona Medical** \$10 million (Equity)
 - **Seattle Genetics** \$525 million (Public offering)
 - **Impel NeuroPharma** \$1.25 million (Equity)
 - **Impel NeuroPharma** \$4 million (Equity)
 - **Cardiac Insight** \$3.5million
 - **Just Biotherapeutics** \$15 million (Series A)
 - **VDA Pharma** \$55,000 (Debt)
 - **Joylux** \$3 million (Seed)
 - **Accelerator** \$11.7 million (Venture Equity)
 - **Spiral Genetics** \$200,000 (Debt)
 - **Cytodyn** \$2.7 million (Equity)
- September 2015 total:** \$573,513,227
2015 running total (Jan – Oct 5th): \$3,202,095,657

September 2015

Life Science Transactions by Quarter: 2013 - 2015

At the end of Q3 2015, life science transactions are 36% more than all 2013 and 2014 transactions combined.

Transactions per Quarter (Millions)



*As of October 10, 2015

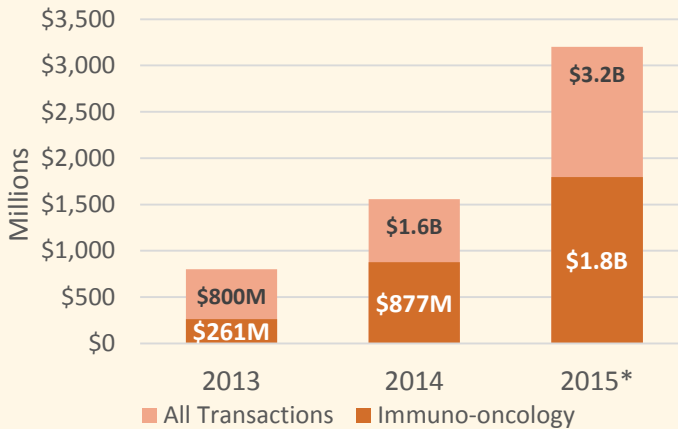
Highlights from 3rd quarter of 2015

- RF Surgical Systems acquired by Medtronic in July for \$235 million.
- Seattle Genetics second public offering – \$525 million
- Arivale raised \$36 million Series B from ARCH Venture Partners, Polaris Partners and Maveron
- \$4 million partnership between 3M and Impel NeuroPharma

Immuno-oncology Cluster Transactions

Seattle has a robust immuno-oncology cluster with adaptive immunotherapies, diagnostics and enabling technologies.

Immuno-oncology vs All Transactions



*As of October 10, 2015

Immuno-oncology Cluster Transactions

- Immuno-oncology transactions account for:
 - 26% of all transactions in 2013
 - 56% of all transactions in both 2014 & 2015
- 6.9 times increase in immuno-oncology cluster transactions from 2013 to 2015.

Juno Therapeutics is best known for pioneering cell-based therapies in Seattle. However, the immuno-oncology ecosystem in Washington is robust and bolstered by companies developing diagnostics and enabling technologies.

Immuno-oncology Transaction Highlights: 2013 to Q3 2015

Venture Capital Funding: \$805M total

- **Juno Therapeutics (\$310M):** Bezos Expeditions, Venrock, ARCH Venture Partners
- **Adaptive Biotechnologies (\$195M):** Matrix Capital
- **Immune Design (\$60M):** Alta Partners, Osage University Partners, Versant Ventures, Topspin Partners

Partnerships: \$1.2B total

- **Juno Therapeutics (\$1B):** Celgene (New Jersey)
- **Immune Design (\$168M):** Sanofi (France)
- **Seattle Genetics (\$11M):** Genmab (Denmark)
- **NanoString Technologies (\$5.75M):** Celgene (New Jersey)

IPOs and Acquisitions: \$920M total

- **Dendreon (\$495M):** Acquired by Valeant Pharmaceuticals
- **Juno Therapeutics (\$265):** IPO
- **Immune Design (\$60M):** IPO
- **NanoString Technologies (\$54M):** IPO
- **Alpine Biosciences (\$27M):** Acquired by Oncothyreon
- **Pregenen (\$20M):** Acquired by Bluebird Bio

Washington-based Life Science Transactions 2015

Date	Company	Type	Amount
01/22/15	Alder Biopharmaceuticals	Second public offering	\$203,600,000
01/22/15	Adaptive Biotechnologies	Series E	\$93,750,000
01/28/15	Vesiflo	Convertible note	\$650,000
01/30/15	MalarVx, Inc	Equity	\$110,000
02/05/15	Alpine Immune Sciences	Seed	\$1,300,000
02/10/15	Valant Medical Solutions	Venture Equity	\$285,350
02/13/15	Stasys Medical	Series A	\$160,000
02/18/15	StratoScientific	Venture Equity	\$550,000
02/23/15	Dendreon	Acquisition	\$495,000,000
03/06/15	Cerevast Therapeutics	Series C	\$1,375,000
03/09/15	KinDex Pharmaceuticals	Series A	\$500,000
03/11/15	Cardiac Dimensions	Venture Equity	\$15,200,000
03/15/15	Medical Mirror Systems	Equity	\$250,000
03/19/15	Nortis	Venture Equity	\$408,845
03/20/15	Healthentic	Series C	\$3,750,000
03/20/15	StratoScientific	Venture Equity	\$150,000
03/25/15	Cadence Biomedical	Equity	\$959,578
04/08/15	NuvoMed	Equity	\$390,637
04/10/15	Cardeas Pharma	Series B	\$3,500,000
04/13/15	Carena	Debt	\$500,000
04/17/15	X2 Biosystems	Venture Equity	\$350,000
04/23/15	Deep Domain	Venture Equity	\$30,000
04/24/15	Mpirica Health	Series A	\$1,600,000
05/01/15	Mirabilis Medica	Debt	\$2,920,000
05/06/15	Adaptive Biotechnologies	Series F	\$195,000,000
05/06/15	Theraclone Sciences	Venture Equity	\$3,080,000
05/06/15	Cyrus Biotechnology	Debt	\$850,000
05/06/15	InDemand Interpreting	Venture Equity	\$4,000,000
05/14/15	Cytodyn	Debt	\$3,281,050
05/18/15	Tissue Regeneration Systems	Debt	\$2,093,182
05/19/15	KPI Therapeutics	Equity	\$27,000
05/21/15	Ventec Life Systems	Venture Equity	\$8,192,480
05/27/15	BioViva USA	Equity	\$250,000
06/02/15	C-SATS	Venture Equity	\$2,500,000
06/03/15	Magnolia Medical Technologies	Venture Equity	\$6,235,322
06/04/15	Carena	Series B	\$13,300,000
06/05/15	Valant Medical Solutions	Venture Equity	\$3,000,000
06/11/15	Glycostasis	Equity	\$149,998
06/16/15	Altius Institute for Biomedical Sciences	Partnership	\$95,000,000
06/16/15	Remote Medical International	Partnership	\$95,000,000
06/17/15	Stratos Genomics	Series B	\$19,999,976
06/20/15	Global Innovation Exchange	Partnership	\$45,000,000
06/20/15	Vicis	Seed	\$1,600,000
06/22/15	Qliance Medical Management	Debt	\$520,753
06/24/15	Nativis	Venture Equity	\$725,000
06/24/15	Cadence Biomedical	Series B	\$1,200,000
06/25/15	Blaze Bioscience	Equity	\$85,400
06/28/15	Juno Therapeutics	Partnership	\$1,000,000,000
06/29/15	Nexgenia	Equity	\$1,617,582
06/30/15	Vera Whole Health, Inc	Debt	\$2,000,000
07/13/15	Arivale	Series B	\$36,000,000
07/14/15	Cytodyn	Equity	\$1,972,500
07/14/15	RF Surgical Systems	Acquisition	\$235,000,000
07/21/15	Deep Domain	Equity	\$260,507
07/31/15	Qliance Medical Management	Debt	\$2,676,730

Date	Company	Type	Amount
08/07/15	Precision Image Analysis	Equity	\$60,348
08/11/15	Vicis	Venture Equity	\$1,500,000
08/12/15	Marina Biotech	Equity	\$1,100,000
08/13/15	Bloomingtondale Memory Care	Equity	\$3,373,525
08/17/15	OtoNexus Medical Technologies	Debt	\$754,990
08/18/15	Immusoft	Debt	\$375,000
08/19/15	Sound Pharmaceuticals	Debt	\$300,000
08/21/15	Navigating Cancer	Venture Equity	\$6,605,573
08/28/15	Aqueduct Critical Care	Equity	\$3,712,304
09/02/15	Kona Medical	Debt	\$10,000,300
09/14/15	Seattle Genetics	Second public offering	\$525,000,000
09/14/15	Impel Neuropharma	Equity	\$1,257,927
09/18/15	Impel Neuropharma	Equity	\$4,000,000
09/21/15	Cardiac Insight	Undisclosed	\$3,500,000
09/22/15	Just Biotherapeutics	Series A	\$15,000,000
09/24/15	VDA Pharma	Debt	\$55,000
09/24/15	Joylux	Seed	\$3,000,000
09/30/15	Accelerator Corporation	Venture Equity	\$11,700,000
10/02/15	Spiral Genetics	Debt	\$200,000
10/04/15	Cytodyn	Equity	\$2,693,800
2015 Running Total as of October 10, 2015			\$3,202,095,657

Washington-based Life Science Transactions 2013

Date	Company	Type	Amount
01/03/13	Qliance Medical Management	Series D	\$8,650,000
01/04/13	RF Surgical Systems	Series A	\$120,000
01/30/13	Immune Design	3rd installment series B	\$10,625,000
01/31/13	FlexMinder	Series A	\$1,200,000
02/08/13	Kineta	Venture Equity	\$2,737,052
02/14/13	X2 Biosystems	NA	\$2,000,000
02/15/13	Healionics	NA	\$50,000
02/20/13	Miribilis Medica	NA	\$120,000
02/20/13	Ventec Life Systems	Venture Equity	\$6,800,000
02/22/13	Blaze Bioscience	Series A	\$8,500,000
02/22/13	Endogastric Solutions	Debt	\$10,000,000
02/27/13	Resolve Therapeutics	Partnership	\$8,000,000
03/01/13	Cadence Biomedical	Venture Equity	\$213,000
04/01/13	EveryMove	Series A	\$3,500,000
04/03/13	Avado	Seed equity	\$1,000,000
03/05/13	PreSage Biosciences	Partnership	\$13,000,000
03/12/13	Appature	Acquisition	NA
03/12/13	Spiral Genetics	Venture Equity	\$3,200,000
03/25/13	Theraclone Sciences	Series B	\$14,000,000
04/02/13	Cardiac Dimensions	debt	\$2,730,000
04/02/13	Cerevast Therapeutics	Venture Equity	\$1,500,000
04/11/13	Atossa Genetics	Venture Equity	\$100,000
04/17/13	Beat BioTherapeutics	Debt	\$2,500,000
04/18/13	NuvoMed	Equity	\$485,000
04/19/13	Miribilis Medica	Debt	\$100,000
05/13/13	NanoString Technologies	Venture Equity	\$150,000
05/23/13	Cardeas Pharma	Series B	\$34,000,000
05/23/13	Valant Medical Solutions	Venture Equity	\$784,000
05/24/13	Remote Medical International	Venture Equity	\$8,000,000
05/24/13	Ekos	Acquisition	\$180,000,000
05/28/13	VentriPoint	Debt	\$750,000
05/30/13	Cadence Biomedical	Grant (US DoD)	\$1,000,000
05/30/13	Oncothyreon	Stock sale	\$10,000,000
06/03/13	AVM Biotechnology	Venture Equity	\$708,000
06/05/13	Mobisante	Venture Equity	\$4,200,000
06/06/13	Cheetah Medical	Venture Equity	\$14,500,000
06/12/13	Immune Design	Partnership	\$10,000,000
06/14/13	Miribilis Medica	Venture Equity	\$7,000,000
06/18/13	Exo Labs	NA	\$836,000
06/20/13	X2 Biosystems	Venture Equity	\$1,200,000
06/25/13	Seattle Genetics - Bayer deal	Partnership	\$20,000,000
06/26/13	NanoString Technologies	IPO	\$54,000,000
06/27/13	Lifecom	Series A	\$1,100,000
06/28/13	Blaze Biosciences	Series B	\$8,100,000
07/12/13	PhaseRx	Debt	\$500,000
07/12/13	X2 Biosystems	Debt	\$720,000
08/15/13	Project Violet	NewCo	\$20,000,000
08/16/13	Tissue Regeneration Systems	Venture Equity	\$4,600,000
08/19/13	Allozyne	Debt	\$2,500,000
09/03/13	Oncofactor	Venture Equity	\$1,000,000
09/03/13	Alpine Bioventures formed	Investor	\$5,000,000
09/09/13	Stratos Genomics	Venture Equity	\$2,000,000
09/16/13	Adaptive Biotechnologies	Grant (NIH)	\$2,530,000
09/20/13	Integrated Diagnostics	NewCo	\$1,500,000
10/03/13	PhaseRx	Debt	\$1,400,000
10/10/13	Kineta	Venture Equity	\$760,000
10/15/13	Qliance Medical Management	Venture Equity	\$5,500,000
10/16/13	Sound Pharmaceuticals	Venture Equity	\$6,000,000
10/16/13	Cardiac Dimensions	debt	\$555,000
10/21/13	Kona Medical	Venture Equity	\$10,000,000
10/29/13	Avado	Acquisition	\$25,000,000
10/30/13	Immune Design	Venture Equity	\$49,000,000
11/04/13	Kineta	NIH Grant	\$6,800,000
11/15/13	Cell Therapeutics	Partnership	\$60,000,000
11/26/13	Cerevast Therapeutics	Debt	\$1,780,000
11/27/13	Impel NeuroPharma	Venture Equity	\$2,640,000
12/05/13	Clarity Health	Series B	\$6,600,000
12/03/13	Blaze Bioscience	Series B*	\$900,000
12/05/13	Juno Therapeutics	Series A	\$120,000,000
12/10/14	Integrated Diagnostics	Seed equity	\$300,000
12/27/13	X2 Biosystems	Venture Equity	\$5,000,000
2013 Total			\$800,043,052

Washington-based Life Science Transactions 2014

Date	Company	Type	Amount
01/07/14	Cardiac Dimensions	Debt	\$367,000
01/08/14	Seattle Genetics	Partnership	\$25,000,000
01/13/14	Juno Therapeutics	Series A extension	\$25,000,000
01/13/14	ActX	Seed equity	\$1,900,000
01/14/14	NovuMed	Undisclosed	\$535,000
01/21/14	Seattle Genetics	Partnership	\$9,000,000
02/04/14	Acucela	IPO (Japan)	\$162,000,000
02/12/14	Cardiac Dimensions	Debt	\$456,000
02/12/14	Nativis	Venture Equity	\$9,160,000
03/05/14	Immunexpress	Venture Equity	\$6,000,000
03/14/14	Kineta	Venture Equity	undisclosed
03/14/14	Nortis	Undisclosed	\$1,200,000
03/17/14	CadenceMD	Debt	\$55,000
03/20/14	Cardiac Dimensions	Debt	\$380,000
03/25/14	Clarity Health	Venture Equity	\$836,000
03/25/14	BioLife Solutions	IPO	\$15,400,000
03/25/14	FlexMinder	Series A	\$1,200,000
03/26/14	KinDex Pharmaceuticals	Series A	\$5,000,000
04/07/14	Adaptive Biotechnologies	Series C&D	\$105,000,000
04/09/14	Oricula Therapeutics	Seed equity	\$122,000
04/10/14	Tissue Regeneration Systems	Debt	\$1,500,000
04/14/14	JeNu Biosciences	Debt	\$1,480,000
04/14/14	Etubics	Seed	\$4,400,000
04/16/14	Cardiac Dimensions	Venture Equity	\$20,000,000
04/18/14	X2 Biosystems	Debt	\$2,510,000
04/24/14	Juno Therapeutics	Series A extension	\$31,000,000
04/29/14	Integrated Diagnostics	Debt	\$17,000,000
04/29/14	Integrated Diagnostics	Series B	\$30,250,000
05/08/14	Alder Biopharmaceuticals	IPO	\$80,000,000
05/13/14	Stratos Genomics	Series B	\$10,000,000
05/14/14	PharmalN	Venture Equity	\$1,500,000
05/15/14	AVM Biotechnology	Series B	\$1,500,000
05/16/14	Kineta	Equity	\$1,627,498
06/06/14	NanoString Technologies	Partnership	\$5,750,000
06/15/14	Cardiac Insight	Series B	\$7,000,000
07/01/14	Pregenen	Acquired	\$20,000,000
07/11/14	Nortis	Venture Equity	\$1,000,000
07/15/14	Valant Medical	Venture Equity	\$11,000,000
07/18/14	ActX	Seed	\$750,000
07/21/14	Nativis	Undisclosed	\$2,319,000
07/25/14	Immune Design	IPO	\$60,000,000
07/29/14	Accelerator Corporation	Venture Equity	\$51,100,000
07/29/14	Amgen	Closing WA Offices	
07/30/14	Theraclone Sciences	Partnership	undisclosed
07/30/14	Array Health	Debt	\$100,000
07/30/14	Jintronic	Debt	\$772,500
08/04/14	Juno Therapeutics	Series B	\$134,000,000
08/07/14	Immune Design	License	\$168,000,000
08/11/14	Alpine BioSciences	Acquisition	\$27,000,000
08/15/14	Carena	Debt	\$1,995,000
08/21/14	Immusoft	Series A	\$2,300,000
09/02/14	Clarity Health	Venture Equity	\$1,059,352
09/03/14	NovoNordisk	Closing Inflammatory Research Center	
09/10/14	Seattle Genetics	License	\$11,000,000
09/15/14	Tissue Regeneration Systems	Debt	\$500,000
09/23/14	VentriRx Pharmaceuticals	Venture Equity	\$19,300,000
09/26/14	Array Health	Series A	\$13,000,000
10/07/14	Cardiac Dimensions	Venture Equity	\$8,500,000
10/08/14	Blaze BioScience	NCI SBIR Phase II Funding	\$1,500,000
10/09/14	Mirador Biomedical	Acquired	undisclosed
10/27/14	Limeade	Series C	\$25,000,000
11/05/14	Vicis	Seed	\$2,000,000
11/19/14	IDRI	Contract	\$3,600,000
11/21/14	Aortica	Series A	\$7,000,000
12/09/14	Allen Institute for Cell Science	Paul Allen Donation	\$100,000,000
12/19/14	Juno Therapeutics	IPO	\$264,600,000
12/30/14	Oncogenex	Venture Equity	\$27,000,000
12/30/14	Cerevast Therapeutics	Venture Equity	\$10,000,000
2014 Total			\$1,558,524,350

This report is prepared by WBBA Commercialization Manager, Yesenia Green, PhD, yesenia@washbio.org.

***The data in this report is compiled from publicly disclosed information and is not independently verified by WBBA.*