

INDUSTRY PAYMENTS ANALYTICS



Payments Insights & Trends for **Biogen**

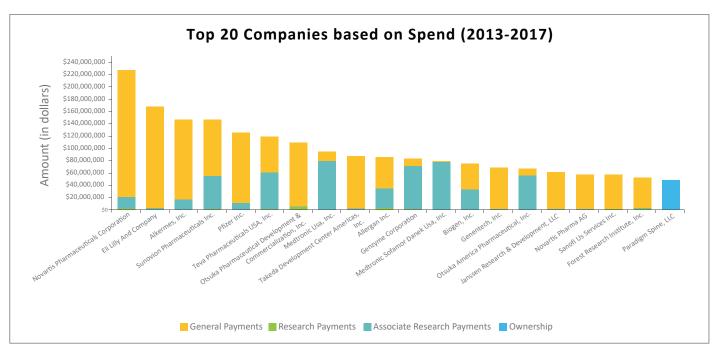
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Industry Overview

Life Sciences companies need to track HCP Payments to get an understanding of average spends on HCPs, competitor affiliations and overall HCP utilization for different engagements. This can provide valuable insights to plan strategic KOL initiatives and engagements. Payments Analytics uses Open Payments data and creates insightful reports around the industry-HCP engagements.

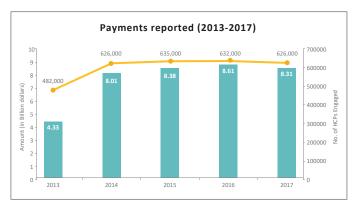
An overview of the top 20 Life Sciences companies and their spend (2013-2017)



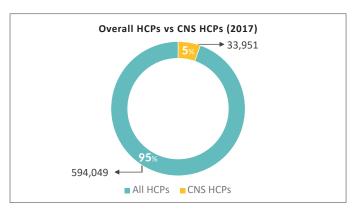
Sunshine Act and its Significance for Life Sciences Companies

The Physician Payments Sunshine Act (PPSA) requires medical product manufacturers to disclose to the Centers for Medicare and Medicaid Services (CMS) any payments or other transfers of value made to physicians or teaching hospitals. It also requires certain manufacturers and group purchasing organizations (GPOs) to disclose any physician ownership or investment interests held in those companies.

Life Sciences companies payments trends (2013-2017)



In 2017, Life Sciences companies spent \$8.31 billion on 626,000 HCPs.



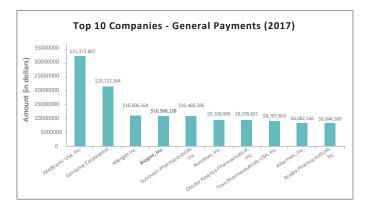
8.6% (\$725 million) of the overall Payments was made to 5.4% (33,951) CNS experts in 2017.



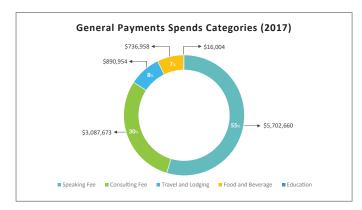
Biogen Industry Payments Trends

Biogen is an American multinational biotechnology company specializing in the discovery, development, and delivery of worldwide innovative therapies for people living with serious neurological and neurodegenerative diseases. Major focus areas include Multiple Sclerosis, Alzheimer's Disease, Parkinson's Disease, Amyotrophic Lateral Sclerosis (ALS), Spinal Muscular Atrophy (SMA) and Progressive Supranuclear Palsy (PSP).

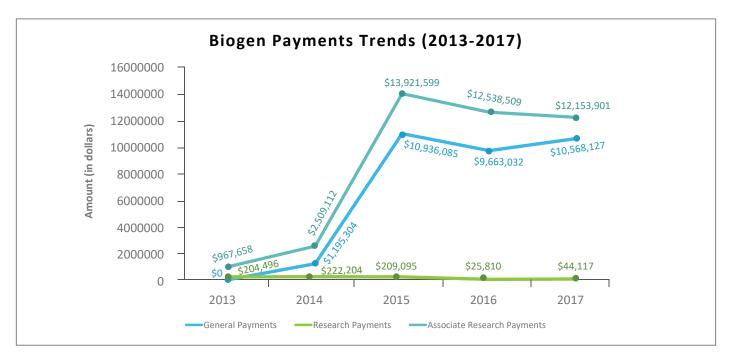
Biogen - 4th Company to have the highest Spend on Industry-HCP Engagement with CNS Experts



Biogen spent \$10,568,128 on 4,151 CNS experts (General Payments 2017).



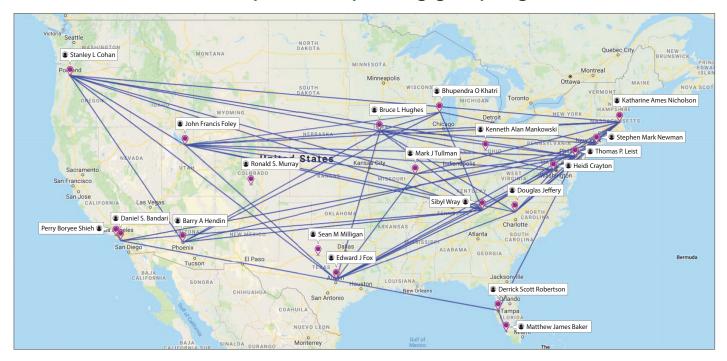
Biogen has spent \$5.7mn on speaking fee and \$3mn as consulting fee on CNS experts in 2017.



In 2015, Biogen significantly increased General Payments, Associate Research Payments spends on CNS experts, with 48 new studies initiated in the CNS space. In 2016, there was a dip in General Payments spends which was revived to \$10mn in 2017 on CNS experts.

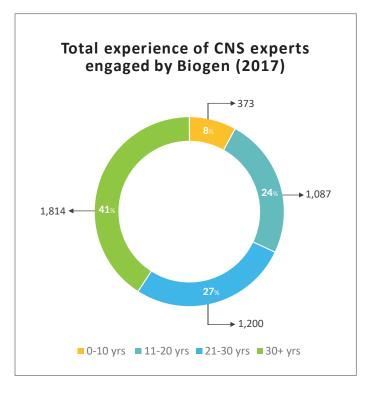


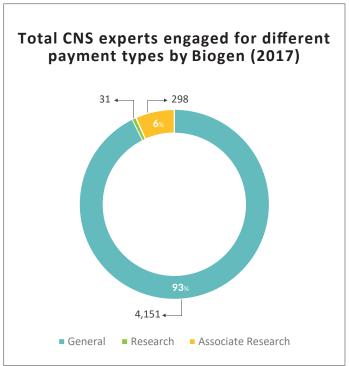
Geo Location & Network of Top 20 CNS Experts Engaged by Biogen in 2017



Professional Network and Geo locations of Top 20 CNS experts engaged by Biogen (General Payments 2017). The network is based on co-authorship, research activities, speaking engagements and organizations of CNS Experts.

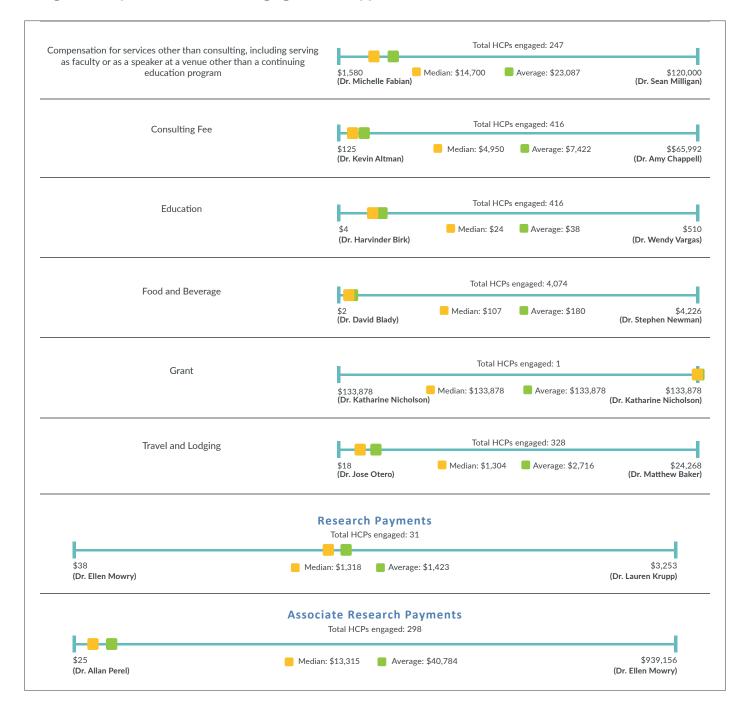
Biogen - CNS Experts' Experience and Engagement by Payment Types







Biogen - Payments across Engagement Types (2017)





Top 5 conditions treated by CNS experts engaged by Biogen (2017)

Solution Epilepsy
Solution Seizures
Dementia
Depression
Major Depressive Disorder



Competitor View of HCP Engagement

Top 20 CNS experts engaged by Biogen and their competitors (General Payments 2017)

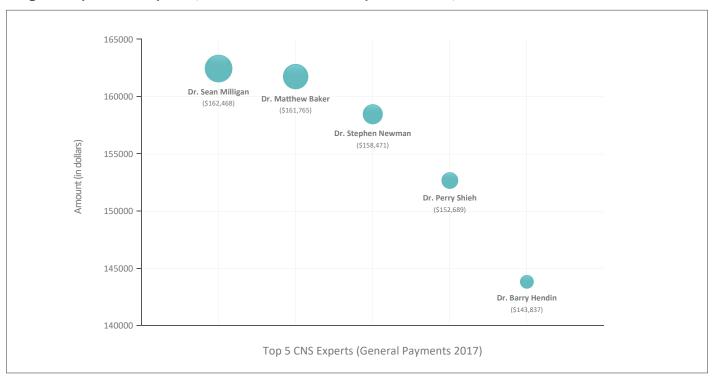
= Paid more than Biogen

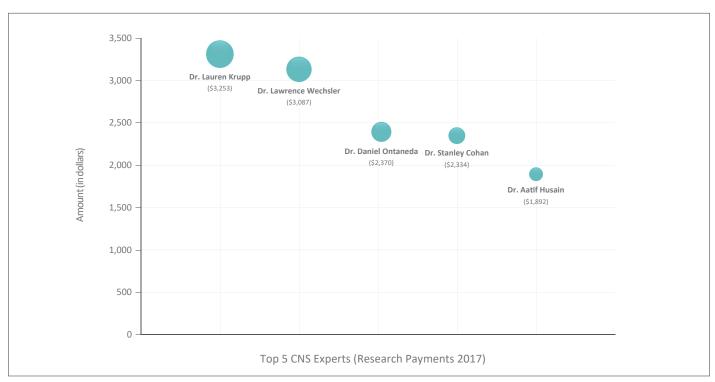
= Paid less than Biogen

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No.	HCP Name			Companies				
1	Dr. Sean M Milligan (Texas)	Biogen \$162,468	Teva Pharma \$5,457	Allergan \$256	•	Genentech \$174	EMD Serono \$151	,
2	Dr. Matthew James Baker (Florida)	Biogen \$161,765	Genzyme \$175,099	Avanir Pharma \$12,932	•	Mallinckrodt \$6,980	Teva Pharma \$6,921	,
3	Dr. Stephen Mark Newman (New York)	Biogen \$158,471	Genzyme \$105,134	Teva Pharma \$23,576	•	Mallinckrodt \$18,641	Genentech \$14,693	,
4	Dr. Perry Boryee Shieh (California)	Biogen \$152,689	Sarepta Therapeutics \$18,942	Alexion Pharma \$15,545	•	PTC Therapeutics \$5,152	Genentech \$2,697	
5	Dr. Barry A Hendin (Arizona)	Biogen \$143,837	Genzyme \$58,525	Genentech \$50,421	•	Teva Pharma \$26,532	Mallinckrodt \$21,812	
6	Dr. Bhupendra O Khatri (Wisconsin)	Biogen \$142,440	Genzyme \$225,036	Teva Pharma \$55,334	•	EMD Serono \$30,377	Genentech \$26,868	
7	Dr. Katharine Ames Nicholson (Massachusetts)	Biogen \$133,878	Mitsubishi Tanabe \$12					
8	Dr. Kenneth Alan Mankowski (Ohio)	Biogen \$124,795	Genzyme \$146,820	Acorda Therapeutics \$34,563		Genentech \$28,017	Teva Pharma \$9,300	
9	Dr. Sibyl Wray (Tennessee)	Biogen \$122,464	Genzyme \$102,819	Genentech \$40,344	•	EMD Serono \$9,338	Abbvie \$4,696	
10	Dr. Bruce L Hughes (Iowa)	Biogen \$119,516	Genentech \$50,442	Genzyme \$42,761	•	Acorda Therapeutics \$18,522	EMD Serono \$10,811	
11	Dr. Derrick Scott Robertson (Florida)	Biogen \$113,943	Genzyme \$67,198	Genentech \$21,106	•	EMD Serono \$13,979	Mallinckrodt \$10,872	
12	Dr. Daniel S. Bandari (California)	Biogen \$109,052	Genzyme \$180,025	Teva Pharma \$109,101	1	EMD Serono \$60,145	Acorda Therapeuti \$11,999	cs
13	Dr. Douglas Jeffery (North Carolina)	Biogen \$104,114	Genzyme \$119,626	Genentech \$53,008	•	Mallinckrodt \$29,232	Teva Pharma \$11,514	
14	Dr. Mark J Tullman (Missouri)	Biogen \$103,475	Genzyme \$154,124	Genentech \$43,959	•	EMD Serono \$16,776	Acorda Therapeutio \$16,640	cs
15	Dr. John Francis Foley (Utah)	Biogen \$99,779	Genentech \$18,136	Teva Pharma \$211	•	EMD Serono \$209	Sunovion \$197	
16	Dr. Stanley L Cohan (Oregon)	Biogen \$99,449	Genzyme \$35,680	Genentech \$19,093	•	Novartis \$5,330	Acorda Therapeuti \$350	cs
17	Dr. Heidi Crayton (Virginia)	Biogen \$95,509	Genzyme \$210,209	Genentech \$51,439	•	Acorda Therapeutics \$20,519	Novartis \$15,371	
18	Dr. Thomas P. Leist (Pennsylvania)	Biogen \$93,404	Genzyme \$69,390	EMD Serono \$46,526	•	Genentech \$29,343	Teva Pharma \$26,052	
19	Dr. Ronald S. Murray (Colorado)	Biogen \$92,907	Genzyme \$109,854	Teva Pharma \$22,516	•	Acorda Therapeutics \$150	Genentech \$46	
20	Dr. Edward J Fox (Texas)	Biogen \$88,913	EMD Serono \$37,760	Teva Pharma \$26,373	•	Genentech \$22,949	Genzyme \$13,857	



Biogen - Top 5 CNS Experts (General and Research Payments 2017)





Aissel Technologies specializes in cutting-edge medical Thought Leader solutions. konectar, our KOL Management Platform has the most innovative features built using robust technologies for data analytics and reporting, sophisticated algorithms using machine learning for client-specific KOL identification. With a really cool user interface, users can Discover, Profile and Engage the right medical experts with konectar.

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