

Biotronik: Portfolio Report

Introduction:

Founded in 1963, Biotronik is a multinational biomedical technology company that designs, manufactures, and markets medical devices for the treatment of cardiac arrhythmia, vascular diseases, heart failure, and coronary and peripheral artery diseases. It is headquartered in Berlin, Germany and has manufacturing sites in Germany, United States, and Switzerland. ^{[1][2]}

In its early years, the company manufactured implantable pacemakers. Later, it ventured in to developing a comprehensive spectrum of vascular intervention and electrophysiology products. Currently, Biotronik's product portfolio caters to three main segments and consists of the following:

- a. Cardio rhythm management: products such as pacemakers, electrodes, implantable defibrillators, and other monitoring and programming devices
- b. Vascular intervention: products such as coronary stent systems, guide wires, and balloon catheters
- c. Electrophysiology: products such as ablation and angioplasty catheters ^[1]

In addition, the company offers various solutions such as BIOTRONIK Home Monitoring, (an automatic remote monitoring system for implant patients), DX Atrial Sensing (a dual-chamber sensing device), ProMRI (includes a portfolio of cardiac devices and leads for MRI scans), and proBIO (a coating that makes metal stents biologically invisible). ^[2]

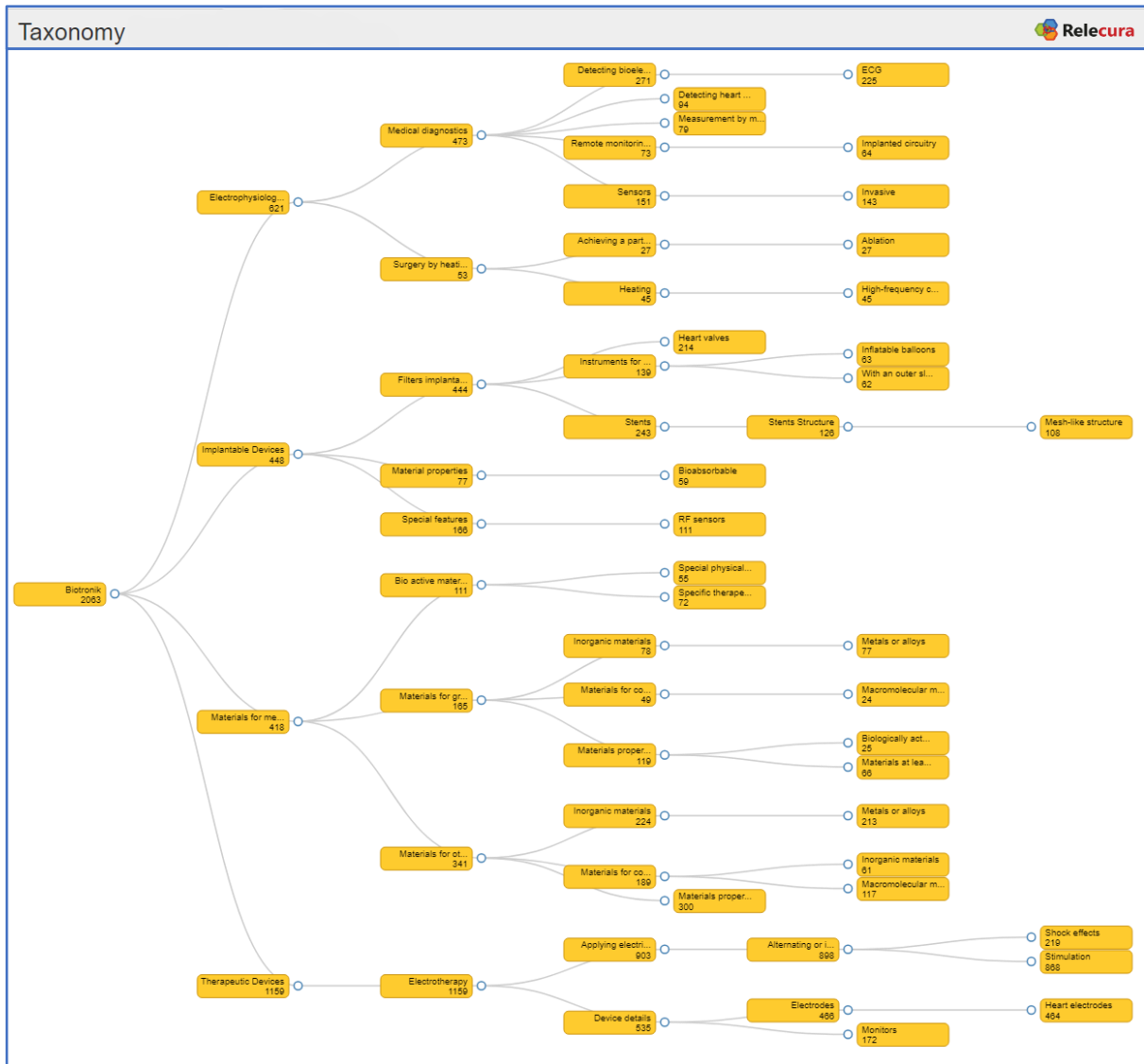
Biotronik has employees in over 50 countries, with research and development centres in North America, Europe, and Singapore. ^[1] This report takes a closer look at the patent assets held by Biotronik that are currently in force. It includes a portfolio taxonomy and provides insights into various aspects of the overall portfolio.

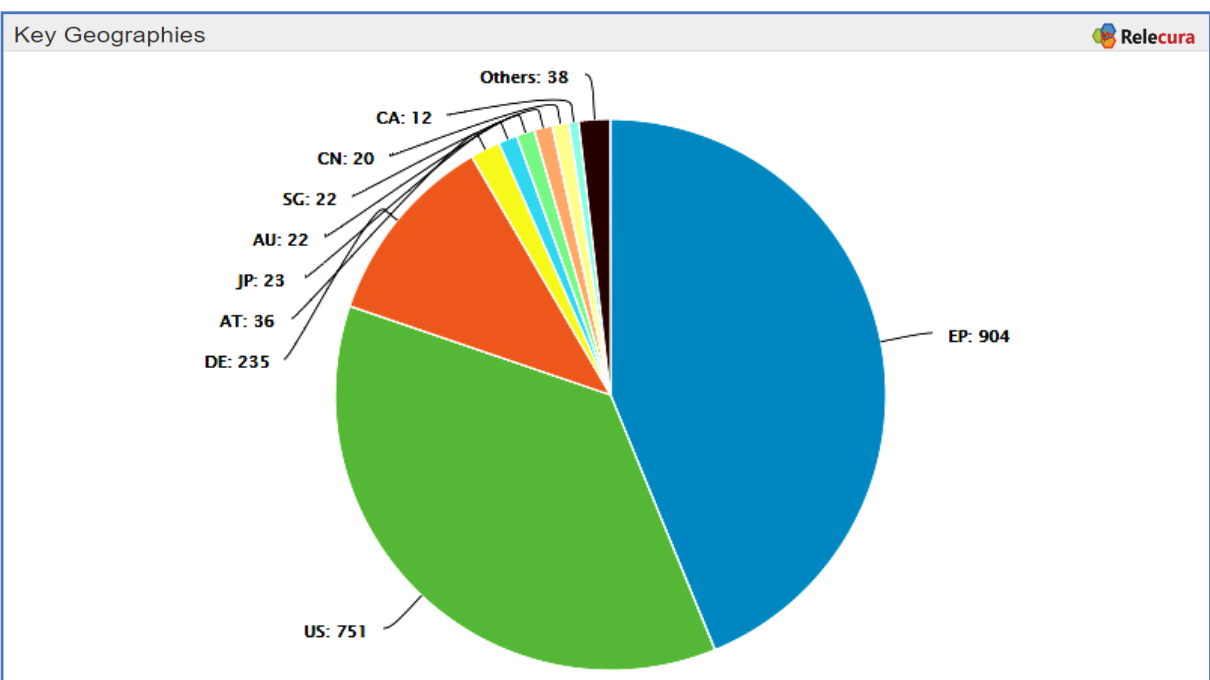
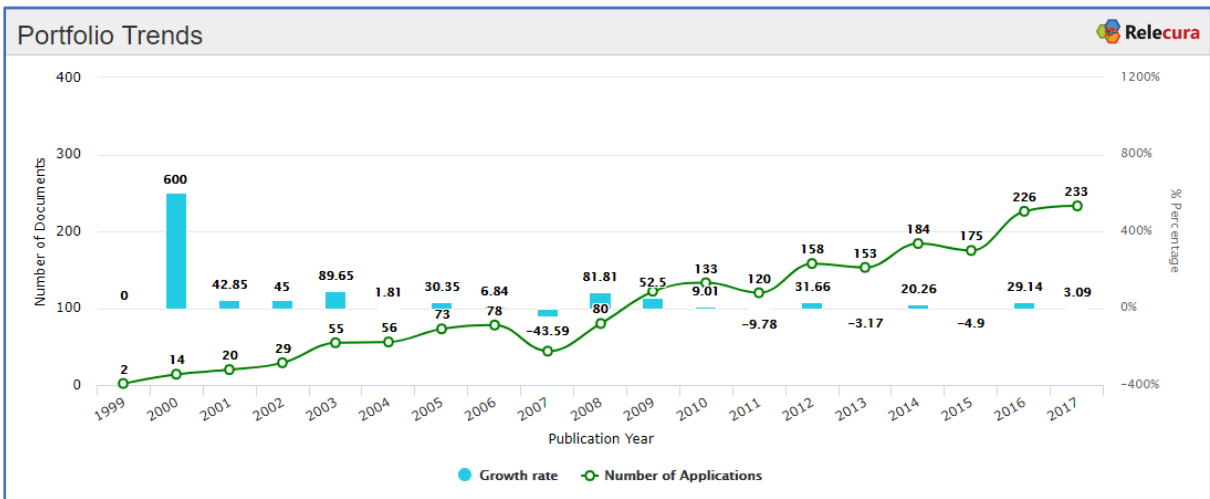
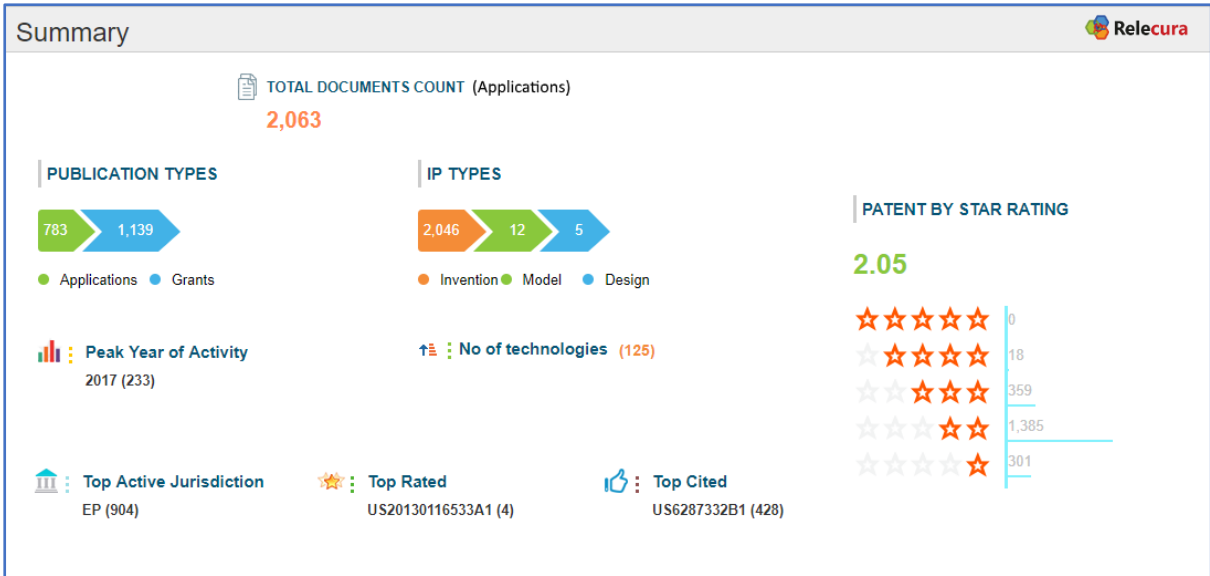
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Sources


- [1. Biotronik \(Wikipedia\)](#)
- [2. Biotronik Company Overview \(Bloomberg\)](#)

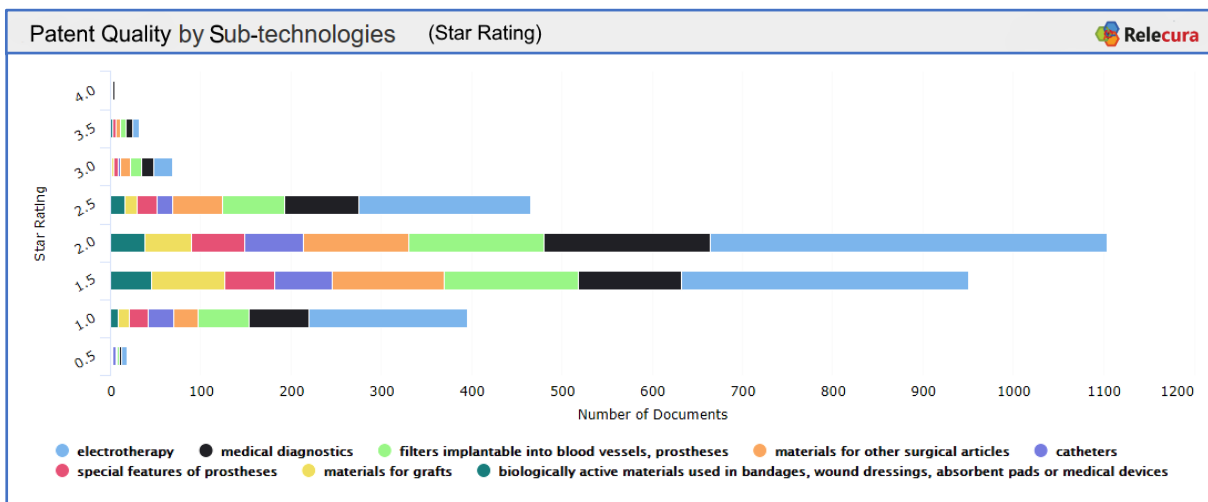
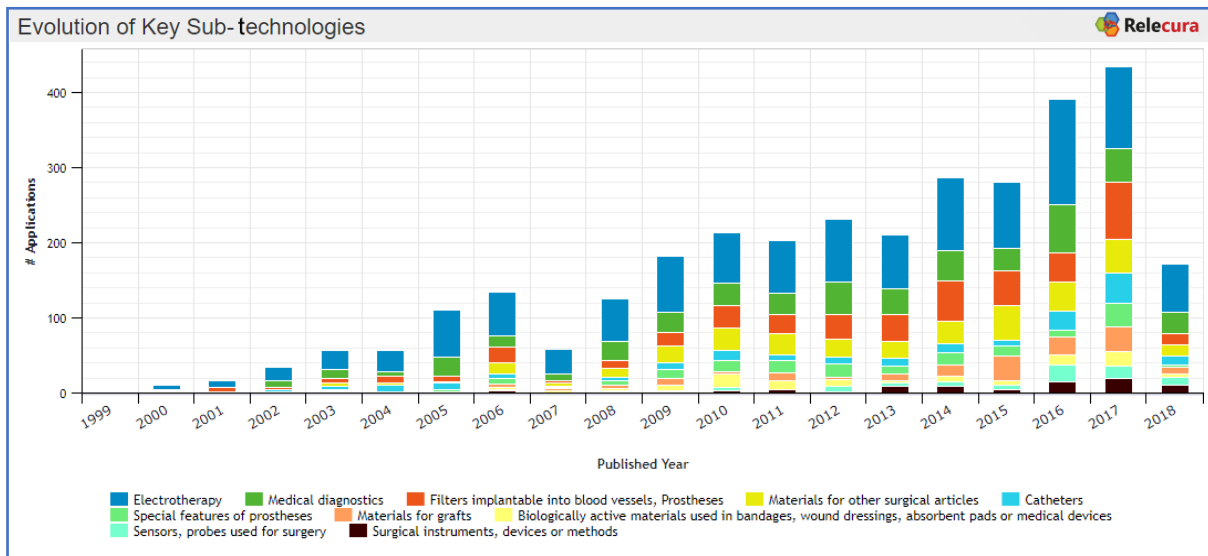




Key Technologies		
Technologies	# Applications	
Therapeutic Devices - Energy	1159	
Diagnosis & Surgery Identification	621	
Implantable Devices	447	
Sterilisation, Dressing	418	
Drug Delivery Devices	212	
Printed Circuits	93	
Miscellaneous Technologies	89	
Digital Data Processing	84	
Electric Elements - Connectors, Collectors	80	
Metal Alloys	75	

Key Sub-technologies		
Sub-Technologies	# Applications	
Electrotherapy	1159	
Medical diagnostics	473	
Filters implantable into blood vessels, Prostheses	443	
Materials for other surgical articles	341	
Catheters	180	
Special features of prostheses	166	
Materials for grafts	165	
Biologically active materials used in bandages, wound dressings, absorbent pads or medical devices	111	
Sensors, probes used for surgery	87	
Surgical instruments, devices or methods	85	

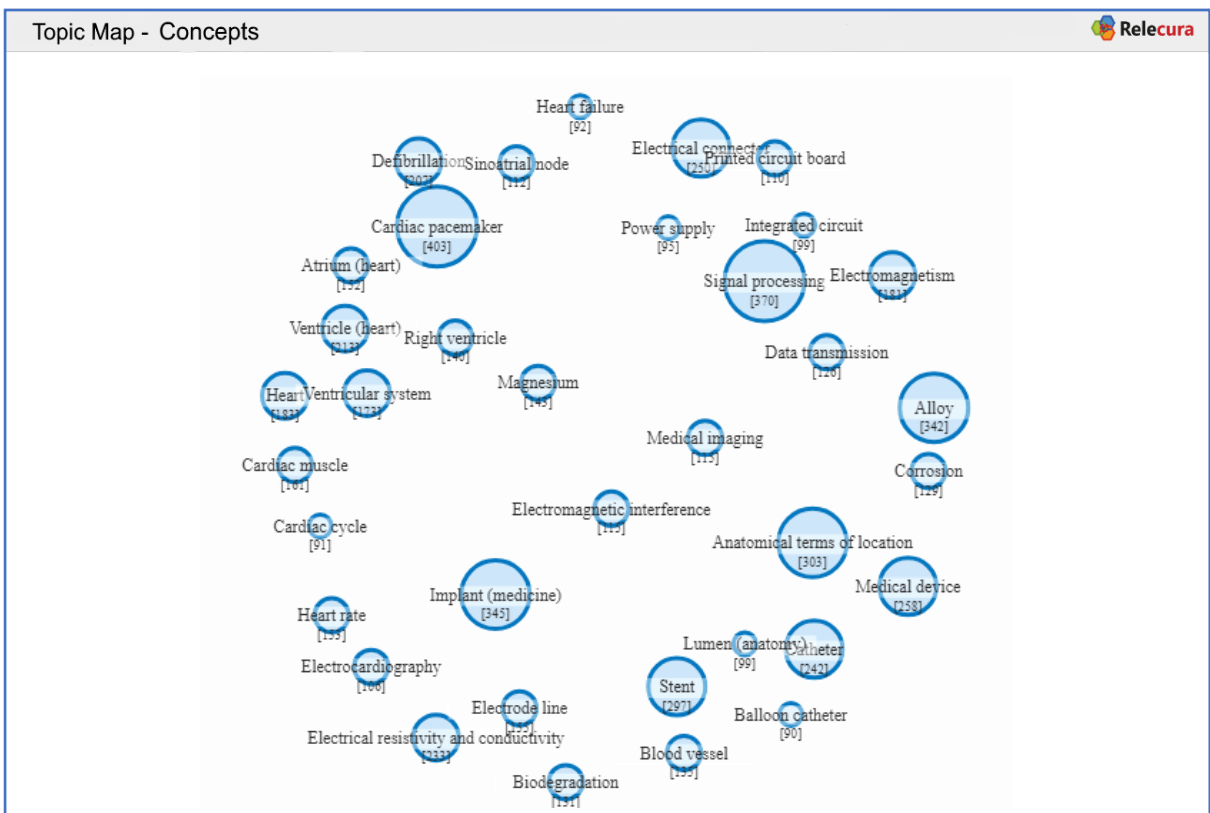
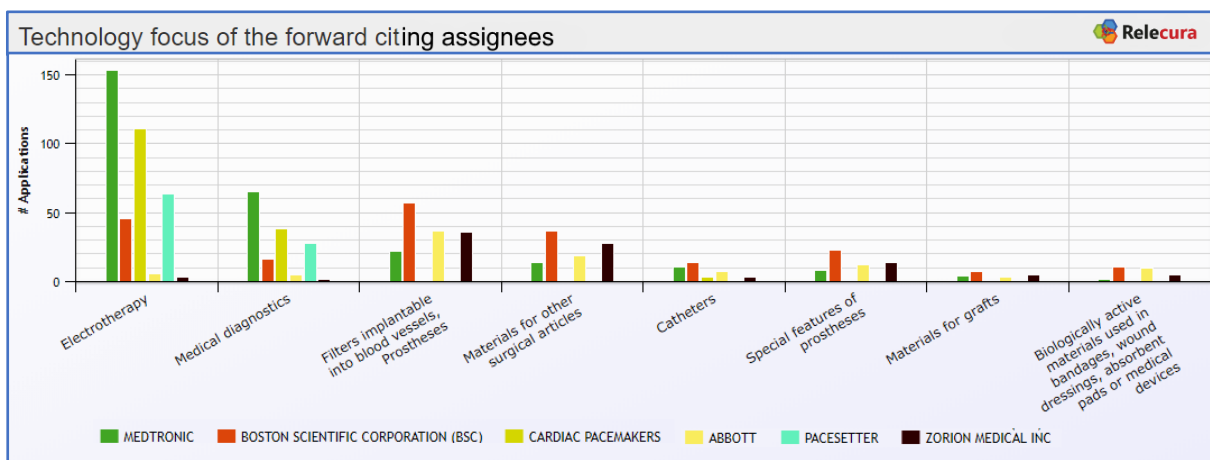
Analysis of Key Technologies					
Technologies	Applications	Grants	Sub Technologies	Geographies	
therapeutic devices - energy	366	703	electrotherapy (1159) , medical diagnostics (336) , sensors, probes used for surgery (53) , catheters (51) , electrical coupling devices (44)	EP (497) , US (455) , DE (144) , AT (28) , SG (12)	
diagnosis & surgery identification	251	333	medical diagnostics (473) , electrotherapy (394) , sensors, probes used for surgery (87) , surgical instruments, devices or methods (85) , filters implantable into blood vessels, prostheses (74)	EP (254) , US (253) , DE (77) , AT (12) , SG (7)	
implantable devices	219	211	filters implantable into blood vessels, prostheses (444) , materials for other surgical articles (190) , special features of prostheses (166) , materials for grafts (86) , catheters (79)	EP (191) , US (161) , DE (46) , JP (10) , AU (8)	
sterilisation, dressing	186	204	materials for other surgical articles (341) , filters implantable into blood vessels, prostheses (217) , materials for grafts (165) , biologically active materials used in bandages, wound dressings, absorbent pads or medical devices (111) , special features of prostheses (71)	EP (184) , US (125) , DE (33) , JP (15) , CN (11)	
drug delivery devices	96	107	catheters (181) , filters implantable into blood vessels, prostheses (87) , electrotherapy (70) , medical diagnostics (32) , special features of prostheses (26)	EP (94) , US (70) , DE (25) , JP (7) , AT (4)	



Key Patents in portfolio

Publication No.	Title	Inventor	Filing Date	Star Rating	#Fwd Citations
US7879367B2	Metallic implant which is degradable in vivo	Bernd Heublein, Gerd Hausdorf	1999-11-29	4.0	407
US20130116533A1	LONG-TERM CUTANEOUS CARDIAC MONITORING	Jie Lian, Dirk Muessig, Volker Lang	2012-10-24	4.0	57
US6434429B1	Implant with close and long-range telemetry	Michael Kraus, Martin Lang, Bernhard Lang, Johannes Neudecker, Klemens Beetz, Axel Nagelschmidt, Jens Potschadtke	2000-06-22	4.0	190
US6690971B2	Device for regulating heart rate and heart pumping force	Patrick Schauerte, Max Schaldach	2000-11-30	3.5	304
US6292703B1	Neural electrode arrangement	MEIER JAN H, FLACH ERHARD, BRESKOT TOBIAS	1999-10-08	3.5	187

Top Forward Citing Assignees	
FC Assignees	# Applications
MEDTRONIC	197
CARDIAC PACEMAKERS	122
BOSTON SCIENTIFIC CORPORATION (BSC)	113
PACESETTER	68
ABBOTT	49
ST. JUDE MEDICAL	48
ZORION MEDICAL	44
REMON MEDICAL TECHNOLOGIES LTD	32



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