

# SUPPLEMENTAL MATERIAL

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## Supplemental Methods

### ***Additional information on the methods***

#### *Sample size*

The projected Kaplan-Meier incidence of a primary endpoint event in the placebo group was 3.8% at 12 months, 6.4% at 24 months, 9.0% at 36 months, and 11.4% at 48 months.<sup>1,2</sup> Other assumptions included 1% of patients lost to follow-up through 24 months, a median LDL-C at baseline of 90 mg/dL, and a 50% reduction of LDL-C from baseline with alirocumab treatment, resulting in an expected 15% hazard reduction. Based on the assumptions above and specifying a log-rank test at an overall 1-sided 2.5% significance level (0.01% at second interim analysis and 2.49% at final analysis), the trial would have 90% power with 1,613 primary endpoint events.

To achieve these 1613 events, 18,924 patients were randomized at 1315 sites in 57 countries (detailed in Supplement 3). Of these, 9462 were assigned to alirocumab and 9462 to placebo. Outside of China, patients were randomized between November 2012 and November 2015. In China, 613 patients were randomized between May 2016 and February 2017.

#### *Randomization*

The randomized list of treatment kit numbers was generated by Sanofi. The Project Demand manager provided the randomized list of treatment kit numbers and the Study Biostatistician provided the randomization scheme to the centralized treatment allocation system provider. This centralized treatment allocation system provider generated the patient randomization list, using either the Interactive Voice Response System or the Interactive Web Response System, according to which it allocated the treatment kits to the patients.

Patients were randomized to receive either placebo or alirocumab during the double-blind study treatment period using a ratio 1:1, with permuted-block randomization. Randomization was stratified according to country.

The treatment kit numbers were allocated using the centralized treatment allocation system on randomization visit (Day 1, Month 0), Month 2, Month 4, every 4 months up to Month 24, and then every 6 months up to Month 64.

For patients in the alirocumab treatment arm, the treatment kit allocated at Month 2 was based on their Month 1 LDL-C level following the up-titration rules. Regular transfer of data was planned between the central laboratory and the centralized treatment allocation system provider to proceed in a blinded manner for study sites and sponsor.

Before randomizing a patient, the Investigator or designee had to contact the centralized treatment allocation system.

#### *Blinding*

In order to protect the blind, all double-blind treatment kit boxes had the same look and feel and were labeled with a double-blind label.

## **Univariate General Joint Semiparametric Model to Determine if Total Nonfatal Cardiovascular Events are Related to Noncardiovascular Death**

Hazard functions with treatment and region in the model for subject  $i$  and nonfatal event  $j$  at time  $t$ :

Total nonfatal cardiovascular events:  $r_{ij}(t|u_i, v_i) = u_i v_i r_0(t) \exp(\beta_1 x)$

Noncardiovascular death:  $\lambda_i(t|u_i) = u_i \lambda_0(t) \exp(\beta_2 x)$

Where:

$$x = \begin{cases} 1 & \text{if alirocumab} \\ 0 & \text{if placebo} \end{cases}$$

$v_i$ : Random frailty effect, independent of  $u_i$ , specified to have a Gamma distribution with mean 1 and variance  $\eta$ . Conditional on a patient's values on the model predictors (i.e., treatment group in the above univariate model, or all factors in a multivariate model), this frailty effect reflects the within-patient association between their nonfatal cardiovascular event times. When  $\eta = 0$ , the nonfatal event times for a given patient are independent of each other, whereas when  $\eta > 0$ , there is an association between the nonfatal event times.

$u_i$ : Random frailty effect, independent of  $v_i$ , specified to have a Gamma distribution with mean 1 and variance  $\theta$ . Conditional on a patient's values on the model predictors (i.e., treatment group in the above univariate model, or all factors in a multivariate model), this frailty effect reflects the within-patient association between their nonfatal cardiovascular and noncardiovascular death event times. When  $\theta = 0$ , the nonfatal and fatal event times for a given patient are independent of each other, whereas when  $\theta > 0$ , there is an association between the nonfatal and fatal event times.

$r_0(t)$  and  $\lambda_0(t)$ : Baseline hazard functions for nonfatal cardiovascular events and noncardiovascular death, estimated by splines.

$\beta_1$  and  $\beta_2$ : Log treatment hazard ratios for total nonfatal cardiovascular events and noncardiovascular death, respectively.

For the purposes of this analysis:

- Cardiovascular deaths result in censoring for nonfatal cardiovascular events and noncardiovascular death at the time of death.
- For a given patient, nonfatal cardiovascular events that occurred on the same day as a noncardiovascular death are excluded (to enable model convergence).

Note that interpretation of the estimated frailty variances in a given multivariate model is the same as with the univariate model.

## ***Potential Predictors of Total Nonfatal Cardiovascular Events and Noncardiovascular Deaths Included in Multivariate Joint Semiparametric Model, in Addition to Treatment Assignment***

The following baseline patient characteristics were included in the multivariate hazard functions for total nonfatal myocardial infarction, stroke, or unstable angina, and noncardiovascular death:

- Age category (<65, 65 to <75, ≥75 years)
- Sex
- Geographic region (Western Europe, Eastern Europe, North America, South America Asia, Rest of World)
- Baseline low-density lipoprotein cholesterol group (<100 mg/dL (<2.59 mmol/L), ≥100 mg/dL (≥2.59 mmol/L))
- Diabetes status (normoglycemia, prediabetes, diabetes)
- Smoking status (never, prior, current)
- History of myocardial infarction prior to index ACS event
- History of CABG prior to index ACS event
- History of peripheral artery disease prior to index ACS event
- History of chronic obstructive pulmonary disease prior to index ACS event
- History of stroke prior to index ACS event
- History of malignant disease\* prior to index ACS event
- Baseline renal function (estimated glomerular filtration rate <60 mL/min/1.73 m<sup>2</sup>, ≥60 mL/min/1.73 m<sup>2</sup>)

\* List of terms in medical history that were included:

HLGT: Breast neoplasms malignant and unspecified (including nipple)

HLGT: Endocrine neoplasms malignant and unspecified

HLGT: Gastrointestinal neoplasms malignant and unspecified

HLGT: Hematopoietic neoplasms (excluding leukemias and lymphomas)

HLGT: Hepatobiliary neoplasms malignant and unspecified

HLGT: Leukemias

HLGT: Lymphomas Hodgkin's disease

HLGT: Lymphomas NEC

HLGT: Lymphomas non-Hodgkin's B-cell

HLGT: Lymphomas non-Hodgkin's T-cell

HLGT: Lymphomas non-Hodgkin's unspecified histology

HLGT: Mesotheliomas

HLGT: Metastases

HLGT: Miscellaneous and site unspecified neoplasms malignant and unspecified

HLGT: Neoplasm related morbidities

HLGT: Nervous system neoplasms malignant and unspecified NEC

HLGT: Plasma cell neoplasms

HLGT: Renal and urinary tract neoplasms malignant and unspecified

HLGT: Reproductive neoplasms female malignant and unspecified

HLGT: Reproductive neoplasms male malignant and unspecified

HLGT: Respiratory and mediastinal neoplasms malignant and unspecified

HLGT: Skin neoplasms malignant and unspecified

HLGT: Soft tissue neoplasms malignant and unspecified

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**Bosnia and Herzegovina (156 patients enrolled)** Ibrahim Terzic (Heart Center BH, Tuzla); Fahir Barakovic (University Medical Center Tuzla, Tuzla); Zlatko Midzic (Cantonal Hospital "Dr. Irfan Ljubijankic" Bihac, Bihac); Belma Pojskic (Cantonal Hospital Zenica, Zenica); Emir Fazlibegovic (University Clinical Hospital Mostar, Mostar); Mirza Dilic (University Clinical Center Sarajevo, Sarajevo); Azra Durak-Nalbantac and Mehmed Kulić (University Clinical Center of Sarajevo, Sarajevo); Dusko Vulic (Clinical Center Banja Luka, Banja Luka); Adis Muslibegovic (Regional Medical Center „Dr. Safet Mujic“, Mostar); Boris Goronja (Clinical Center Banja Luka, Banja Luka).

**Brazil (928 patients enrolled)** Gilmar Reis (CARDRESEARCH - Cardiologia Assistencial e de Pesquisa, Belo Horizonte, Minas Gerais); Luciano Sousa (Hospital do Coracao do Brasil, Brasilia, Distrito Federal); Jose C Nicolau (INCOR - Instituto do Coracao, Sao Paulo, Sao Paulo); Flavio E Giorgeto (Hospital Sao Francisco De Assis, Belo Horizonte, Minas Gerais); Ricardo P Silva (Hospital Universitario Walter Cantidio, Fortaleza); Lilia Nigro Maia (Hospital De Base de São José do Rio Preto, Sao Jose Do Rio Preto, Sao Paulo); Rafael Rech (Hospital Universitario Ulbra, Canoas); Paulo RF Rossi (Hospital Evangelico De Curitiba, Curitiba, Parana); Maria José AG Cerqueira (Instituto de Ensino e Pesquisa Clínica do Ceara Ltda., Fortaleza, Ceara); Norberto Duda (Hospital São Vicente De Paulo, Passo Fundo, Rio Grande do Sul); Renato Kalil (Instituto De Cardiologia Do Rio Grande Do Sul, Porto Alegre, Rio Grande do Sul); Adrian Kormann (Sociedade Divina Providência (Hospital Santa Isabel), Blumenau, Santa Catarina); José Antonio M Abrantes (Santa Casa de Misericórdia de Pelotas, Pelotas, Rio Grande do Sul); Pedro Pimentel Filho (Hospital Nossa Senhora da Conceicao, Porto Alegre, Rio Grande do Sul); Ana Priscila Soggia (Sociedade Beneficiente de Senhoras Hospital Sírio Libanês, Sao Paulo); Mayler ON de Santos (Centro de Cardiologia e Radiologia Intervencionista LTDA, Aparecida de Goiania); Fernando Neuenschwander (Hospital Vera Cruz - NUPEC, Belo Horizonte); Luiz C Bodanese (Hospital Sao Lucas - PUCRS, Porto Alegre, Rio Grande do Sul); Yorghos L Michalaros (Instituto de Ensino, Consultoria e Pesquisa Clínica LTDA-ME, Belo Horizonte, Minas Gerais); Freddy G Eliaschewitz (CPCLIN - Centro de Pesquisas Clinicas, Sao Paulo, Sao Paulo); Maria H Vidotti (Clínica LOEMA, Campinas, Sao Paulo); Paulo E Leaes (Santa Casa De Porto Alegre, Porto Alegre, Rio Grande do Sul); Roberto V Botelho (Instituto Do Coracao Do Triangulo, Uberlandia, Minas Gerais); Sergio Kaiser (CCBR Brasil, Rio De Janeiro, Rio de Janeiro); Euler Roberto F Fernandes Manenti (IMV - Instituto De Medicina Vascular



Hospital Mae de Deus, Porto Alegre, Rio Grande do Sul); Dalton B Precoma (Sociedade Hospitalar Angelina Caron, Campina Grande do Sul, Parana); Jose C Moura Jorge (Santa Casa De Curitiba, Curitiba, Parana); Pedro GM de B Silva (Esho Empresa de Serviço Hospitalares S.A, Sao Paulo, Sao Paulo); Jose A Silveira (Faculdade de Medicina do ABC / CEMEC, Sao Bernardo do Campo, Sao Paulo); Wladimir Saporito (Instituto de Moléstias Cardiovasculares Tatuí (IMC), Tatuí, Sao Paulo; and Hospital Estadual Mario Covas, Santo Andre); Jose A Marin Neto (HCFMRP, Riberão Preto); Gilson S Feitosa (Hospital Santa Izabel / Santa Casa de Misericórdia da Bahia, Salvador, Bahia); Luiz Eduardo F Ritt (Hospital Cardio Pulmonar, Salvador; Hospital Cardio Pulmonar at Salvador); Juliana A de Souza (Centro de Cardiologia Clínica e Pesquisa Dra. Juliana Souza, Brasília, Distrito Federal); Fernando Costa (FGM-Clinica Paulista de Doenças Cardiovasculares, Sao Paulo); Weimar KSB Souza (Barroso e Sebba Ltda, Goiania); Helder JL Reis (Hospital De Clínicas Gaspar Vianna, Belem, Para); Renato D. Lopes (Universidade Federal de São Paulo - UNIFESP/EPM); Leandro Machado (Hospital Estadual Mario Covas, Santo Andre); José Carlos Aidar Ayoub (Instituto de Moléstias Cardiovasculares/IMC, São José do Rio Preto).

**Bulgaria (333 patients enrolled)** Georgi V Todorov (2nd MHAT, Sofia); Fedya P Nikolov (Univ Multiprofile Hosp for Active Treatment "Sveti Georgi", Plovdiv); Elena S Velcheva (Specialized Hospital for Active Treatment in Cardiology, Pleven); Maria L Tzekova (UMHAT dr Georgi Stranski, Pleven); Haralambi O Benov (Multiprof Distr Hosp for Active Treatment "Dr.St.Cherkeзов", Veliko Tarnovo); Stanislav L Petranov (Multiprofile Hospital for Active Treatment - Burgas AD, Burgas); Haralin S Tumbev (Specialized Hosp. for Active Cardio. Treatment—"Cardiolife", Varna); Nina S Shehova-Yankova (MHAT Bratan Shukerov AD, Cardio. Dept. with Intensive Unite, Smoljan); Dimitar T Markov (UMHAT Tzaritza Yoanna – ISUL EAD, Sofia); Dimitar H Raev (MHAT 'Sveti Vrach' EOOD, Sandanski); Mihail N Mollov (First Multiprofile Hospital for Active Treatment - Sofia EAD, Sofia); Kostadin N Kichukov ("MHAT Lyulin" EAD. Department of Internal Diseases, Sofia); Katya A Ilieva-Pandeva (MHAT Blagoevgrad AD, Blagoevgrad); Nina N Gotcheva (MHAT "National Cardiology Hospital" EAD, Sofia); Raya Ivanova and Maryana Gospodinov (UMHAT Alexandrovska EAD, Sofia); Valentina M Mincheva (NMT Hospital "Tsar Boris III", Sofia); Petar V Lazov (Multiprofile Hospital for Active Treatment - Pazardzhik AD, Pazardzhik); Bojidar I Dimov (Fifth MHAT-Sofia EAD, Sofia).

**Canada (361 patients enrolled)** Manohara Senaratne (Dr. M. P. J Senaratne Professional Corporation, Edmonton, Alberta); James Stone (TotalCardiology, Calgary, Alberta); Jan Kornder (deceased), Stephen Pearce (Surrey Memorial Hospital, Surrey, British Columbia); Danielle Dion (Centre Hospitalier Beauce-Etchemin, St. Georges de Beauce, Quebec); Daniel Savard (CardioVasc HR, St. Jean sur Richelieu, Quebec); Yves Pesant (Saint Jerome Medical Research, Inc., St. Jerome); Amritanshu Pandey (Cambridge Cardiac Care Center, Cambridge, Ontario); Simon Robinson (Victoria Heart Institute Foundation, Victoria, British Columbia); Gilbert Gosselin (Centre Hospitalier Pierre Le Gardeur, Terrebonne, Quebec); Saul Vizel (Vizel Cardiac Research, Cambridge, Ontario); Gordon Hoag (Discovery Clinical Services, Victoria, British Columbia); Ronald Bourgeois (G.A. Research Associates, Ltd., Moncton, New Brunswick); Anne Morisset (Centre de Santé et de Services Sociaux de la Haute-Yamaska, Granby, Quebec); Eric Sabbah (Centre de Dépistage et Recherche Cardiovasculaire Rive-Sud, Longueuil, Quebec); Bruce Sussex (General Hospital Health Sciences Center, St. John's, Newfoundland and Labrador); Simon Kouz (Centre Hospitalier Régional de Lanaudière, Joliette, Quebec); Paul MacDonald (Cape Breton Regional Hospital, Sydney, Nova Scotia); Ariel Diaz (Centre Hospitalier Régional de Trois-Rivières, Trois-Rivières, Quebec); Nicolas Michaud (Clinique de Cardiologie de Lévis, Lévis, Quebec); David Fell (Newmarket Cardiology Research Group, Newmarket, Ontario); Raymond Leung and Raymond Leung Royal Alexandra Hospital, Edmonton, Alberta); Tycho Vuurmans (Royal Columbian Hospital, New Westminster, British Columbia); Christopher Lai, Frank Nigro (current PI) (Thunder Bay Regional Health Science Center, Thunder Bay, Ontario); Richard Davies (Ottawa Heart Institute, Ottawa, Ontario); Gustavo Nogareda (Red Deer Regional Hospital Centre, Red Deer, Alberta); Ram Vijayaraghavan (Scarborough Cardiology Research, Scarborough, Ontario); John Ducas (St. Boniface Hospital, Winnipeg, Manitoba); Serge Lepage (Hôtel-Dieu du Centre Hospitalier Universitaire de Sherbrooke, Sherbrooke, Quebec); Shamir Mehta (Hamilton General Hospital, Hamilton, Ontario); James Cha (Private Practice affiliated Lakeridge Health of Oshawa, Oshawa, Ontario); Robert Dupuis (Centre de Santé et de Services Sociaux de la Région de Thetford (Recherche), Thetford Mines, Quebec); Peter Fong and Sohrab Lutchmedial (Saint John Regional Hospital, Saint John, New Brunswick); Josep Rodes-Cabau (Quebec Heart Institute, Laval Hospital, Sainte-Foy, Quebec City, Quebec); Hussein Fadlallah

(Recherche GCP Research, Montreal, Quebec); David Cleveland (Penticton Regional Hospital, Penticton, British Columbia); Thao Huynh (Montreal General Hospital, Montreal, Quebec); Iqbal Bata (Queen Elizabeth II Health Sciences Center, Halifax, Nova Scotia); Adnan Hameed (Medical Professional Corporation, St. Catherines, Ontario).

**Chile (132 patients enrolled)** Cristian Pincetti (Centro de Investigacion Clinica del Sur Cics, Temuco, IX Region de la Araucanía); Sergio Potthoff (Corporacion de Beneficencia Osorno, Osorno, X Region los Lagos); Juan C Prieto (Hospital Clinico Universidad De Chile, Santiago); Monica Acevedo (Centro de Investigaciones Clínicas de la Universidad Católica, Santiago, RM Region Metropolitana); Arnoldo Aguirre (Hospital Barros Luco Trudeau, Santiago, RM Region Metropolitana); Margarita Vejar (Hospital del Salvador, Santiago); Mario Yañez (Hospital Naval Almirante Nef de Viña del Mar, Viña Del Mar, V Region de Valparaiso); Guillermo Araneda (Hospital Clinico Magallanes, Punta Arenas, XII Region Magallanes); Mauricio Fernandez (Clinica Alemana de Santiago, Santiago, RM Region Metropolitana); Luis Perez (Hospital Clinico Regional Dr. Guillermo Grant Benavente, Concepcion, VIII Region del Bio-Bio); Paola Varleta (Psicomédica Clinical and Research Group, Santiago, RM Region Metropolitana); Fernando Florenzano (Biomedica Research Group, Santiago, RM Region Metropolitana); Laura Huidobro (Clinica Universidad Catolica del Maule, Talca, VII Region del Maule); Carlos A Raffo (Estudios clinicos V Region Ltda, Viña del Mar); Claudia Olivares (Hospital y CRS El Pino, Santiago, RM Region Metropolitana); Leonardo Nahuelpan (Hospital Base Valdivia, Valdivia XIV, Region de los Rios); Humberto Montecinos (Complejo Asistencial Dr. Sotero del Rio, Santiago).

**China (614 patients enrolled)** Jiyang Chen (Guangdong General Hospital, Guangzhou); Yugang Dong (The First Affiliated Hospital, Sun Yat-Sen University, Guangzhou); Weijian Huang (The First Affiliated Hospital of Wenzhou Medical University, Wenzhou); Jianzhong Wang (Siping Central People's Hospital, Siping); Shi'An Huang (Affiliated Hospital of Guangdong Medical University, Zhanjiang); Zhuhua Yao (Tianjin Union Medical Center, Tianjin); Xiang Li and Lan Cui (Yanbian University Hospital, Yanji); Wenhua Lin (TEDA International Cardiovascular Hospital, Tianjin); Yuemin Sun (Tianjin Medical University General Hospital,); Jingfeng Wang (Sun Yat-Sen Memorial Hospital, Sun Yat-Sen University, Guangzhou); Jianping Li (Peking University First Hospital, Beijing); Xuelian Zhang (People's Hospital, Changchun); Hong Zhu (The Affiliated Hospital of Xuzhou Medical College, Xuzhou); Dandan Chen (Guizhou Provincial People's Hospital, Guiyang); Lan Huang (Xinqiao Hospital of Third Military Medical University, Chongqing); Shaohong Dong (Shenzhen People's Hospital, Shenzhen); Guohai Su (Jinan Central Hospital Affiliated to Shandong University, Jinan); Biao Xu (Nanjing Drum Tower Hospital, The Affiliated Hospital of NJMU, Nanjing); Xi Su (Wuhan Asian Heart Hospital, Wuhan); Xiaoshu Cheng (The Second Affiliated Hospital to Nanchang University, Nanchang); Jinxiu Lin (The First Affiliated Hospital of Fujian Medical University, Fuzhou); Wenxia Zong (The Third People's Hospital of Hubei Province, Wuhan); Huanming Li (Tianjin 4th Centre Hospital, Tianjin); Yi Feng (Zhongda Hospital, Southeast University, Nanjing); Dingli Xu (Nanfeng hospital, Southern Medical University, Guangzhou); Xinchun Yang (Beijing Chaoyang Hospital, Beijing); Yuannan Ke (China-Japan Friendship Hospital, Beijing); Xuefeng Lin (The First Affiliated Hospital of Baotou Medical College, Baotou); Zheng Zhang (The First Hospital of Lanzhou University, Lanzhou); Zeqi Zheng (The First Affiliated Hospital of Nanchang University, Nanchang); Zhurong Luo (Fuzhou General Hospital of Nanjing Military Command, Fuzhou); Yundai Chen (Chinese PLA General Hospital, Beijing); Chunhua Ding and Yi Zhong (The Central Hospital of China Aerospace Corporation, Beijing); Yang Zheng (First Hospital of Jilin University, Changchun); Xiaodong Li (Shengjing Hospital of China Medical University, Shenyang); Daoquan Peng and Shuiping Zhao (The Second Xiangya Hospital of Central South University, Changsha); Ying Li and Xuebo Liu (Shanghai East Hospital, Shanghai); Meng Wei (Shanghai Sixth People's Hospital, Shanghai); Shaowen Liu (Shanghai First People's Hospital, Shanghai); Yihua Yu (Zhejiang Hospital, Hangzhou); Baiming Qu (Zhejiang Provincial People's Hospital, Hangzhou); Weihong Jiang (The Third Xiangya Hospital Of Central South University, Changsha); Yujie Zhou (Beijing Anzhen Hospital, Capital Medical University, Beijing); Xingsheng Zhao (Inner Mongolia People's Hospital, Hohhot); Zuyi Yuan (The First Affiliated Hospital of Xi'an JiaoTong University, Xi'an); Ying Guo (Hunan Provincial People's Hospital, Changsha); Xiping Xu (The First People's Hospital of Yueyang, Yueyang); Xubo Shi (Beijing Tongren Hospital, Capital Medical University, Beijing); Junbo Ge (Zhongshan Hospital Fudan University, Shanghai); Guosheng Fu (Sir Run Run Shaw Hospital of Zhejiang University, Hangzhou); Feng Bai (Lanzhou University Second Hospital, Lanzhou); Weiyi Fang (Shanghai Chest Hospital Shanghai Jiaotong University, Shanghai); Xiling Shou (Shaanxi Provincial People's Hospital, Xi'an); Xiangjun Yang (First Affiliated Hospital Of

Soochow University, Suzhou); Jian'An Wang and Meixiang Xiang (The Second Affiliated Hospital of Zhejiang University, Hangzhou); Yingxian Sun (First Hospital of China Medical University, Shenyang); Qinghua Lu (Second Hospital of Shandong University, Jinan); Ruiyan Zhang (Ruijin Hospital Affiliated to Shanghai Jiaotong University, Shanghai); Jianhua Zhu (First Affiliated Hospital of Zhejiang University, Hangzhou); Yizhou Xu (Hangzhou First People's Hospital, Hangzhou); Zhongcai Fan (Affiliated Hospital of Luzhou Medical College, Luzhou); Tianchang Li (Navy General Hospital, Cardiology Center, Beijing); Chun Wu (Peking University Shenzhen Hospital, Shenzhen).

**Colombia (354 patients enrolled)** Nicolas Jaramillo (Centro de Medicina del Ejercicio y Rehabilitacion Cardiaca, Medellin); Gregorio Sanchez Vallejo (Fundación Cardiomet CEQUIN, Armenia, Quindio ); Diana C Luna Botia (Hospital Santa Clara, Bogota); Rodrigo Botero Lopez (IPS Rodrigo Botero SAS, Medellin); Dora I Molina De Salazar (Asociacion IPS Medicos Internistas de Manizales, Caldas); Alberto J Cadena Bonfanti and Carlos Cotes Aroca (Clinica de la Costa Ltda, Barranquilla); Juan Diego Higuera and Marco Blanquicett (Fundación Oftalmológica FOSCAL.); Sandra I Barrera Silva (Caja de Compensacion Familiar CAFAM, Bogota); Henry J Garcia Lozada (Fundacion Centro de Investigaciones Biomedicas Riescard, Espinal - Tolima); Julian A Coronel Arroyo (IPS Centro Medico Julian Coronel S.A., Cali, Valle); Jose L Accini Mendoza (IPS Centro científico asistencial SAS, Barranquilla); Ricardo L Fernandez Ruiz and Alvaro M. Quintero Ossa (Centro Cardiovascular Colombiano Clinica Santa María CARDIOVID Medellin, Antioquia); Fernando G Manzur Jatin (Centro de diagnostico cardiologico, Cartagena); Aristides Sotomayor Herazo (Centro Cardiovascular Santa Lucia, Cartagena, Bolivar); Jeffrey Castellanos Parada and Rafael Suarez Arambula (SIMEDICS IPS S.A.S, Bogota D.C.); Miguel A Urina Triana (Fundacion del Caribe para la Investigacion Biomedica, Barranquilla); Angela M Fernandez Trujillo (Centro Medico Imbanaco de Cali S.A, Cali, Valle).

**Croatia (70 patients enrolled)** Maja Strozzi (Clinical Hospital Center Zagreb, Zagreb); Siniša Car (General Hospital Varazdin, Varazdin); Melita Jerić (General Hospital Varazdin, Varazdin), Davor Miličić (University Hospital Center Zagreb, Zagreb); Martina Lovrić Benčić (Clinical Hospital Center Zagreb, Zagreb); Hrvoje Pintarić (University Hospital Centre „Sestre Milosrdnice“, Zagreb); Đeiti Prvulović (General Hospital Slavonski Brod, Slavonski brod); Jozica Šikić (Clinical Hospital Sveti Duh, Zagreb); Viktor Peršić (Thalassoterapia-Opatija, Opatija); Dean Mileta (Clinical Hospital Merkur, Zagreb); Kresimir Štambuk (Special Hosp. for Med. Rehab.Krapinske Toplice, Krapinske Toplice); Zdravko Babić (Clinical Hospital Center, 'Sestre Milosrdnice', Zagreb); Vjekoslav Tomulic (Clinical Hospital Center Rijeka, Rijeka); Josip Lukenda and Stanka Mejic-Krstulovic (General Hospital Dubrovnik, General Hospital Dubrovnik, Dubrovnik); Boris Starcevic (Clinical Hospital Dubrava, Clinical Hospital Dubrava, Zagreb).

**Czech Republic (381 patients enrolled)** Jindrich Spinar (FN Brno, Brno); David Horak and Zdenek Velicka (Krajska Nemocnice Liberec a.s., Liberec); Josef Stasek (Fakultni Nemocnice Hradec Kralove, Hradec Kralove); David Alan (Fakultni Nemocnice v Motole, Praha); Vilma Machova (Interni a kardiologicka ambulance, InterkardioML, s.r.o., Marianske Lazne); Ales Linhart (Vseobecna Fakultni Nemocnice V Praze, Praha); Vojtech Novotny (Nemocnice Pardubickeho kraje, a.s., Pardubice); Vladimir Kaucak (Mestska Nemocnice Ostrava, Ostrava); Richard Rokyta (Fakultni Nemocnice Plzen, Plzen); Robert Naplava (Centrum pro choroby srdce a cev, Kromeriz); Zdenek Coufal (Krajska Nemocnice Tomase Bati a.s., Zlin); Vera Adamkova (Institut klinicke a experimentalni mediciny, Praha); Ivo Podpera (Oblastni Nemocnice Kladno a.s., Kladno); Jiri Zizka (Thomayerova nemocnice, Praha); Zuzana Motovska (Fakultni Nemocnice Kralovske Vinohrady, Praha); Ivana Marusincova (Kardio Sever, r.o., Ceska Lipa); Premysl Svab (Kardiologicka ambulance, Rakovnik); Petr Ostadal (Nemocnice Na Homolce, Praha); Petr Heinc (Fakultni Nemocnice Olomouc, Olomouc); Jiri Kuchar (Kardiologie s.r.o., Cesky Krumlov); Petr Povolny (Cardiocentrum Kladno s.r.o., P-P klinika Kladno, Kladno); Jiri Matuska (Interni a cevni ambulance, Hodonin).

**Denmark (352 patients enrolled)** Steen H Poulsen (Aarhus Universitetshospital Skejby, Aarhus N); Bent Raungaard (Dep Cardiology, Aalborg); Peter Clemmensen; Lia E Bang (Rigshospitalet Hjertecentret, Copenhagen); Ole May; Morten Bøttcher (Region Hospital Herning, Herning); Jens D Hove (Hvidovre Hospital, Hvidovre); Lars Frost (Regionshospitalet Silkeborg, Silkeborg); Gunnar Gislason (Gentofte Hospital, Hellerup); John Larsen (Næstved Sygehus, Næstved); Peter Betton Johansen; Flemming Hald and Peter Johansen (Sygehus Lillebælt, Vejle Sygehus, Vejle); Jørgen Jeppesen (Glostrup Hospital, Glostrup); Tonny Nielsen (Sjællands Universitetshospital Køge, Køge); Kjeld S Kristensen; Piotr Maria Walichiewicz (Holbaek Sygehus, Holbaek); Jens D Lomholdt (Slagelse Sygehus, Slagelse); Ib C Klausen

(Regionshospitalet Viborg, Viborg); Peter Kaiser Nielsen (Hillerød Hospital, Hillerød); Flemming Davidsen (Sygehus Sønderjylland, Aabenraa); Lars Videbaek (Odense Universitetshospital, Odense C).

**Estonia (216 patients enrolled)** Margus Viigimaa (North Estonia Medical Centre, Tallinn); Mai Soots (SA Viljandi Haigla, Viljandimaa); Veiko Vahula (SA Pärnu Haigla, Pärnu); Anu Hedman (AS Ida-Tallinna Keskhaigla, Tallinn); Üllar Soopõld (SA Tartu Ülikooli Kliinikum, Tartu); Kaja Märtsin and Tiina Jurgenson (Mustamäe Tervisekeskus OÜ, Tallinn); Arved Kristjan (Mahe Perearst OU, Tallinn).

**Finland (116 patients enrolled)** Markku S Nieminen, (Biomedicum and Division of Cardiology, Helsinki University Hospital, Juhani K Airaksinen); Saila Vikman Heart Center, Tampere University Hospital; Heikki Huikuri (University Hospital of Oulu), Juhani Airaksinen (Turun Yliopistollinen sairaala Sydänkeskus)**France (185 patients enrolled)** Pierre Coste (Hôpital Cardiologique du Haut-Leveque, Pessac); Emile Ferrari (Hôpital Pasteur, Nice); Nicolas Danchin (Hôpital Européen Georges Pompidou, Paris); Olivier Morel (Nouvel Hôpital Civil, Strasbourg); Gilles Montalescot (Hôpital Pitié Salpêtrière, Paris); Jacques Machecourt and Gilles Barone-Rochette (CHU Albert Michallon, Grenoble); Jacques Mansourati (CHU De Brest Hôpital de la Cavale Blanche, Brest); Yves Cottin (CHU de Dijon Le Bocage Central, Dijon); Ph. Gabriel Steg (Hôpital Bichat, Paris); Florence Leclercq (Hôpital Arnaud de Villeneuve, Montpellier); Abdelkader Belhassane (Centre Hospitalier de Cambrai, Cambrai); Nicolas Delarche (Centre Hospitalier Général, Pau); Franck Boccara (Hôpital Saint-Antoine, Paris); Franck Paganelli (Hôpital Nord, Marseille); Jérôme Clerc (CH Compiègne - Noyon, Compiègne); Francois Schiele (CHU Jean Minjot, Besançon); Victor Aboyens (CHU Dupuytren, Limoges); Vincent Probst (CHU de Nantes, Nantes); Jacques Berland (Clinique Saint Hilaire, Rouen); Thierry Lefèvre (Institut Hospitalier Jacques Cartier, Massy); Bernard Citron (CHU Gabriel Montpied, Clermont-Ferrand).

**Georgia (131 patients enrolled)** Vakhtang Chumburidze (Chapidze Emergency Cardiology Center, Tbilisi); Irakli Khintibidze ("Aleksandr Aladashvili Clinic" LLC, Tbilisi); Tamaz Shaburishvili (Tbilisi Heart and Vascular Clinic, Ltd, Tbilisi); Zurab Pagava (Center of vascular and heart diseases, Tbilisi); Ramaz Ghloni (Unimed Ajara Batumi Referral Hospital, Batumi); Zaza Lominadze (LTD "Clinic-LJ", Kutaisi); George Khabeishvili (Tbilisi Heart and Vascular Clinic, Ltd, Tbilisi).

**Germany (509 patients enrolled)** Rayyan Hemetsberger and Kemala Edward (St. Johannes Hospital, Dortmund); Ursula Rauch-Kröhnert (Charité - Universitätsmedizin Campus Benjamin Franklin, Berlin); Matthias Stratmann (Kardiologische Gemeinschaftspraxis, Dortmund); Karl-Friedrich Appel (Studienzentrum Dr. Appel, Kassel); Ekkehard Schmidt (Cardiologicum Hamburg, Hamburg); Heyder Omran (GFO Kliniken Bonn, Bonn); Christoph Stellbrink (Klinikum Bielefeld Mitte, Bielefeld); Thomas Dorsel (Joseph-Hospital Warendorf, Warendorf); Emmanouil Lianopoulos and Hans Friedrich Vöhringer (DRK Kliniken Berlin-Köpenick, Berlin); Roger Marx (MediClin Fachklinik Rhein/Ruhr, Essen); Andreas Zirlik (Universitätsherzzentrum Freiburg, Freiburg); Detlev Schellenberg (Institut für Klinische Forschung, Rotenburg an der Fulda); Thomas Heitzer (Klinikum Dortmund, Dortmund); Ulrich Laufs and Christian Werner (Universitätsklinikum des Saarlandes, Homburg/Saar); Nikolaus Marx (Universitätsklinikum Aachen, Aachen); Stephan Gielen and Sebastian Nuding (Universitätsklinikum Halle/Saale, Halle (Saale)); Bernhard Winkelmann (ClinPhenomics GmbH & Co. KG, Frankfurt am Main); Steffen Behrens (Vivantes Humboldt-Klinikum, Berlin); Karsten Sydow and Mahir Karakas (Universitäres Herzzentrum Hamburg GmbH, Hamburg); Gregor Simonis (FAZ Dresden-Neustadt GbR, Dresden); Thomas Muenzel (Universitätsklinikum Mainz, Mainz); Nikos Werner (Universitätsklinikum Bonn, Bonn); Stefan Leggewie (Universitäts-Herzzentrum Freiburg-Bad Krozingen, Bad Krozingen); Dirk Böcker (St. Marien-Hospital Hamm, Hamm); Rüdiger Braun-Dullaes (Universitätsklinikum Magdeburg, Magdeburg); Nicole Toursarkissian (Praxis Dr. Nicole Toursarkissian, Berlin); Michael Jeserich (GP Dr. Haggenmiller, PD Dr. Michael Jeserich, Nürnberg); Matthias Weißbrodt (Gemeinschaftspraxis Dr. M. Löbe, Dr. M. Weißbrodt, Leipzig); Tim Schaeufele (Robert-Bosch-Krankenhaus GmbH, Stuttgart); Joachim Weil (Sana Kliniken Lübeck, Lübeck); Heinz Völler (Klinik am See, Rüdersdorf bei Berlin); Johannes Waltenberger (Universitätsklinikum Münster, Münster); Mohammed Natour (HPK-Heidelberger Privatklinik für Kardiologie, Heidelberg); Susanne Schmitt and Dirk Müller-Wieland (Asklepios Klinik St. Georg., Allgemeine Innere Medizin, Hamburg); Stephan Steiner (Krankenhausgesellschaft St. Vincenz mbH, Limburg); Lothar Heidenreich and Elmar Offers (Dreifaltigkeits-Hospital Lippstadt, Lippstadt); Uwe Gremmler (MVZ Ambulantes Kardiologisches Zentrum Peine GbR, Peine); Holger Killat (Praxis Dr. Holger Killat, Haßloch); Werner Rieker (Studienzentrum Rankestrasse, Berlin).

**Greece (70 patients enrolled)** Sotiris Patsilidakos ("Konstantopouleio" General Hospital of Nea Ionia, Athens); Athanasios Kartalis ("Skylitseio" General Hospital of Chios, Chios); Athanassios Manolis ("Asklipeio" General Hospital, Athens); Dimitrios Sionis and Geargios Chachalis ("Sismanogleio" General Hospital of Attica, Marousi); Evangelos Liberopoulos (University General Hospital of Ioannina, Ioannina); Ioannis Skoumas ("Ippokrateio" General Hospital, Athens); Vasilios Athyros ("Ippokrateio" General Hospital, Thessaloniki); Panagiotis Vardas and Frangkiskos Parthenakis (University General Hospital of Heraklion, Crete); previous PI Dimitrios Alexopoulos / current PI Georgios Hahalis (University General Hospital of Patra, Patra); John Lekakis ("Attikon" University General Hospital, Athens); Apostolos Hatzitolios (AHEPA General Hospital of Thessaloniki, Thessaloniki).

**Guatemala (25 patients enrolled)** Sergio R Fausto Ovando (Cilincal Research Center, Guatemala); Pablo Carlos Montenegro Valdovinos (Clinica Privada, Guatemala); Juan L Arango Benecke (Clinicas Medicas; Dr. Arango, Guatemala); Edgar R Rodriguez De Leon (Unidad de Diagnostico Cardiologico, Guatemala).

**Hong Kong (17 patients enrolled)** Bryan PY Yan (Prince of Wales Hospital, Shatin, NT); David CW Siu (Queen Mary Hospital).

**Hungary (224 patients enrolled)** Tibor Turi (Fejér Megyei Szent György Egyetemi Oktató Kórház, Székesfehérvár); Bela Merkely (Szemmelweis Egyetem Városmajori Szív-és Érgyógyászati Klinika, Budapest); Robert Gabor Kiss (Magyar Honvédség Egészségügyi Központ, Budapest); Imre Ungi (Szegedi Tudományegyetem, Szeged); Geza Lupkovic (Zala Megyei Szent Rafael Kórház, Zalaegerszeg); Lajos Nagy (Markusovszky Egyetemi Oktatókórház, Szombathely); András Katona (Békés Megyei Központi Kórház, Gyula); István Édes (Debreceni Egyetem Klinikai Központ, Debrecen); Gábor Müller (Markhot Ferenc Oktatókórház és Rendelőintézet, Eger); Iván Horvath (Pécsi Tudományegyetem Klinikai Központ, Pécs); Tibor Kapin and Zsolt Szigeti (Bajcsy-Zsilinszky KórházRendelőintézet, Budapest); József Faluközy (Állami Szívkórház Balatonfüred, Balatonfüred).

**India (521 patients enrolled)** Mukund Kumbha (Omega Hospital, Mangalore); Manjinder Sandhu (Artemis Health Institute, Gurgaon); Sharath Annam (Sunshine Hospital, Secunderabad); Naveen Reddy Proddatur and Reddy Regella (Mediciti Hospitals, Hyderabad); Rajendra K Premchand (Krishna Institute Of Medical Sciences, Secunderabad); Ajaykumar Mahajan and Sudhir Pawar (Lokmanya Tilak Municipal Medical College & General Hospital, Mumbai); Atul D Abhyankar (Nirmal Hospital Pvt Ltd, Surat); Prafulla Kerkar (Seth GS Medical College & KEM Hospital, Mumbai); Ravishankar A Govinda (K.R.Hospital, Mysore); Abraham Oommen (Apollo Hospital, Chennai); Dhurjati Sinha (ICVS at IPGME&R, SSKM Hospital, Kolkata); Sachin N Patil (Aster Aadhar Hospital, Kolhapur); Dhiman Kahali (B. M. Birla Heart Research Centre, Kolkata); Jitendra Sawhney (Dharma Vira Heart Center, Sir Ganga Ram Hospital, Delhi); Abhijeet B Joshi (Niramay Hospital, Pune); Sanjeev Chaudhary (Fortis Hospital, Gurgaon); Pankaj Harkut (Meditrina Institute of Medical Sciences, Nagpur); Santanu Guha (Medical College and Hospital, Kolkata); Sanjay Porwal (KLEs Dr Prabhakar Kore Hospital & Medical Research Centre, Belgaum); Srimannarayana Jujjuru (Andhra Hospital, Vijaywada); Ramesh B Pothineni (Dr. Ramesh Cardiac & Multispeciality Hospital Ltd., Vijayawada); Minguel R Monteiro (UGH Vintage Hospital & Medical Research Centre Pvt Ltd, Panaji); Aziz Khan (Crescent hospital and heart clinic, Nagpur); Shamanna S Iyengar (Manipal Hospital, Bangalore, Karnataka); Jasprakash Singh Grewal (Satguru Pratap Singh Apollo Hospitals, Ludhiana); Manoj Chopda (Magnum Heart Institute, Nashik); Mahesh C Fulwani (Shrikrishna Hrudayalay and Critical Care Centre, Nagpur); Dr. Aparna Patange and Patil Sachin (Krishna Institute of Medical Sciences Deemed University, Karad, Maharashtra); Vijay K Chopra (Medanta - The Medicity, New Delhi); Naresh K Goyal (Max Super Speciality Hospital, Delhi, Delhi); Rituparna Shinde (Sanjeevan Hospital, Pune); Gajendra V Manakshe (Datta Meghe Institute of Medical Sciences (Deemed University, Wardha); Nitin Patki (Maharashtra Medical Foundation Joshi Hospital, Pune, Maharashtra); Sumeet Sethi (Max Heart & Vascular Institute, New Delhi); Vengatesh Munusamy (SRM Medical College Hospital And Research Centre, Chennai); Sunil Karnaand Sunil Thanvi (Bahubhai And Madhuben Patel Cardiac Centre, Karamsad); Srilakshmi Adhyapak and Chandrakant Patil (St John's Medical College & Hospital, Bangalore); Ulhas Pandurangi (Madras Medical Mission, Chennai); Rishabh Mathur and Jugal Gupta (S. R. Kalla Memorial Gastro & General Hospital, Jaipur); Suhas Kalashetti (K. E .M Hospital, Pune, Maharashtra); Ajit Bhagwat (Kamal Nayan Bajaj Hospital, Aurangabad); Bagirath Raghuraman (Chinmaya Narayana superspeciality hospital, Bangalore); Shiv Kumar Yerra (Mahavir Hospital And Research Centre, Hyderabad); Prasant Bhansali (AMC-MET medical

College and Sheth L G General Hospital, Ahmedabad); Rohidas Borse and Patil Rahul (B.J. Government Med. College and Sassoon General Hospitals, Pune); Srihari Das and Vinay Kumar (NH-Narayana Multispecialty hospital, Bangalore); Jabir Abdullakutty (Lisie Hospital, Cochin); Shireesh Saathe (Deenanath Mangeshkar Hospital, Pune); Priya Palimkar (Jehangir Clinical Development centre, and Jehangir Hospital, Pune); Jabir Abdullakutty (Lisie Hospital, Kochi); Shireesh Saathe (Dmangeshkar Hospital, Pune).

**Israel (582 patients enrolled)** Shaul Atar (Western Galilee Medical Center, Nahariya); Michael Shechter (Sheba MC, Tel HaShomer); Morris Mosseri (Meir Medical Center, Kfar Saba); Yaron Arbel, Chorin Ehud and Havakuk Ofer (Tel Aviv Sourasky MC, Tel Aviv); Chaim Lotan (Hadassah Ein Kerem MC, Jerusalem); Uri Rosenschein (Bnai Zion Medical Center, Haifa); Amos Katz (Barzilai Medical Center, Ashkelon); Yaakov Henkin (Soroka Medical Center, Beer Sheva); Adi Francis (Holy Family Hospital, Nazareth); Marc Klutstein (Shaare Zedek Medical Center, Jerusalem); Eugenia Nikolsky and Robert Zukermann (Rambam MC, Haifa); Yoav Turgeman (Haemek Medical Center, Afula); Majdi Halabi and Alon Marmor (Ziv Medical Center, Safed); Ran Kornowski (Rabin Mc Belinson Campus, Petah-Tikva); Michael Jonas (Kaplan Medical Center, Rehovot); Offer Amir and Yonathan Hasin (The Baruch Padeh Medical Center, Poriya, Tiberias); Yoseph Rozenman (Wolfson Mc, Holon); Shmuel Fuchs and Vered Zvi (Rabin Mc Belinson Campus, Petah-Tikva); Osamah Hussein (Ziv Medical Center, Safed); Dov Gavish (Wolfson Mc, Holon); Zvi Vered (Assaf Harofe Medical Center, Tzrifin); Yoseph Caraco (Hadassah Ein Kerem MC, Jerusalem); Mazen Elias (Haemek Medical Center, Afula); Naveh Tov and Efrat Wolfovitz (Bnai Zion Medical Center, Haifa); Michael Lishner (Meir Medical Center, Kfar Saba); Nizar Elias (Bnei Zion MC, Haifa).

**Italy (275 patients enrolled)** Giancarlo Piovaccari (Ospedale Degli Infermi Rimini, Rimini); Annamaria De Pellegrin and Raffaella Garbelotto (UO Medicina Generale Ospedale di Vittorio Veneto, Vittorio Veneto); Gabriele Guardigli and Valgimigli Marco (Azienda Ospedaliera S. Anna, Ferrara); Giovanni Licciardello (Ospedale E. Moscatello, Augusta, Salerno); Carla Auguadro and Filippo Scalise (Policlinico di Monza, Monza); Claudio Cuccia (Fondazione Poliambulanza - Istituto Ospedaliero, Brescia); Alessandro Salvioni (Centro Cardiologico Fondazione Monzino, Milano); Giuseppe Musumeci and Michelle Senni (ASST-Papa Giovanni XXII, Bergamo); Paolo Calabrò (Azienda Ospedaliera Monaldi, Napoli); Salvatore Novo (A O Universitaria Policlinico P Giaccone, Palermo); Pompilio Faggiano and Marco Metra (Azienda Ospedaliera Spedali Civili di Brescia, Brescia); Nicoletta B De Cesare (Policlinico San Marco - Istituti Ospedalieri Bergamaschi, Osio Sotto, Bergamo); Sergio Berti (Fond.Toscana G.Monasterio-Presidio di Massa-Osped. del Cuore, Massa, Massa-Carrara); Claudio Cavallini (Ospedale S Maria Della Misericordia, Perugia); Enrico Puccioni (Ospedale Civile di Livorno - Divisione Cardiologia-UTIC, Livorno); Marcello Galvani (Ospedale Morgagni-Pierantoni, Forlì, Forlì-Cesena); Maurizio Tespili (Ospedale Bolognini, Seriate, Bergamo); Piermarco Piatti (Ospedale San Raffaele, Milano); Michela Palvarini (A.O. Guido Salvini - P.O. di Passirana, Rho, Milano); Giuseppe De Luca (Azienda Ospedaliera Maggiore Della Carità, Novara); Roberto Violini (Azienda Ospedaliera San Camillo-Forlanini, Roma); Alessandro De Leo and Zoran Olivari (Ospedale Civile Treviso Presidio Ospedaliero Ca' Foncello, Treviso); Pasquale Perrone Filardi (Az. Ospedaliera Univ. Federico II, Napoli); Maurizio Ferratini (IRCCS Fondazione "Don Gnocchi" Centro "S. Maria Nacente", Milano); Vittorio Racca (IRCCS Fondazione "Don Gnocchi" Centro "S. Maria Nacente" – Cardiologia, Milano).

**Japan (204 patients enrolled)** Kazuoki Dai and Yuji Shimatani (Hiroshima City Hospital, Hiroshima-shi, Hiroshima); Haruo Kamiya (Japanese Red Cross Nagoya Daiichi Hospital, Nagoya-shi, Aichi); Kenji Ando (Kokura Memorial Hospital, Kitakyushu-shi, Fukuoka); Yoshihiro Takeda (Rinku General Medical Center, Izumisano-shi, Osaka); Yoshihiro Morino (Iwate Medical University Hospital, Morioka-shi, Iwate); Yoshiki Hata (Minamino Cardiovascular Hospital, Hachioji-shi, Tokyo); Kazuo Kimura (Yokohama City University Medical Center, Yokohama-shi, Kanagawa); Koichi Kishi (Tokushima Red Cross Hospital, Komatsushima-shi, Tokushima); Ichiro Michishita (Yokohama Sakae Kyosai Hospital, Yokohama-shi, Kanagawa); Hiroki Uehara (Urasoe General Hospital, Urasoe-shi, Okinawa); Toshinori Higashikata (National Health Insurance Komatsu Municipal Hospital, Komatsu-shi, Ishikawa); Atsushi Hirayama (Nihon University Itabashi Hospital, Itabashi-ku, Tokyo); Keiji Hirooka and Yasuji Doi (Saiseikai Senri Hospital, Suita-shi, Osaka); Satoru Sakagami (Kanazawa Medical Center, Kanazawa-shi, Ishikawa); Shuichi Taguchi (Mito Medical Center, Higashiibaraki-gun, Ibaraki); Akihiro Koike (Fukuoka-Higashi Medical Center, Koga-shi, Fukuoka); Hiroyuki Fujinaga (Tokushima Prefectural Central Hospital,

Tokushima-shi, Tokushima); Shinji Koba (Showa University Hospital, Shinagawa-ku, Tokyo); Ken Kozuma (Teikyo University Hospital, Itabashi-ku, Tokyo); Tomohiro Kawasaki (Shin-Koga Hospital, Kurume-shi, Fukuoka); Yujiro Ono (Higashi-Hiroshima Medical Center, Higashihiroshima-shi, Hiroshima); Masatoshi Shimizu (Kobe Medical Center, Kobe-shi, Hyogo); Yousuke Katsuda (Fukuoka City Medical Association Hospital, Fukuoka-shi, Fukuoka); Atsuyuki Wada (Kusatsu General Hospital, Kusatsu-shi, Shiga); Toshiro Shinke (Kobe University Hospital, Kobe-shi, Hyogo); Takeshi Kimura (Kyoto University Hospital, Kyoto-shi, Kyoto); Junya Ako (Kitasato University Hospital, Sagamihara-shi, Kanagawa); Kenshi Fujii (Sakurabashi Watanabe Hospital, Osaka-shi, Osaka); Toshiyuki Takahashi (Tokyo Saiseikai Central Hospital, Minato-ku, Tokyo); Tomohiro Sakamoto and Koichi Nakao (Saiseikai Kumamoto Hospital, Kumamoto-shi, Kumamoto); Yutaka Furukawa (Kobe City Medical Center General Hospital, Kobe-shi, Hyogo); Hiroshi Sugino and Ritsu Tamura (Kure Medical Center and Chugoku Cancer Center, Kure-shi, Hiroshima); Toshiaki Mano and Masaaki Uematsu (Kansai Rosai Hospital, Amagasaki-shi, Hyogo); Noriaki Utsu (Minami Osaka Hospital, Osaka-shi, Osaka); Kashima Ito (Nerima Hospital, Nerima-ku, Tokyo); Takuya Haraguchi and Katsuhiko Sato (Caress Sapporo Tokeidai Memorial Clinic, Sapporo-shi, Hokkaido); Yasunori Ueda (Osaka National Hospital, Osaka-shi, Osaka); Akira Nishibe (Amagasaki New Town Hospital, Amagasaki-shi, Hyogo); Kazuteru Fujimoto (Kumamoto Medical Center, Kumamoto-shi, Kumamoto); Motomaru Masutani and Akira Nishibe (Human Medical Amagasaki New Town Hospital, Amagasaki-shi); Kazuteru Fujimoto (National Hospital Organization Kumamoto Medical Center, Kumamoto-shi).

**Korea, Republic of (94 patients enrolled)** Jung Han Yoon (Yonsei University Wonju Severance Christian Hospital, Wonju, Gangwon-do); **Sang-Hyun Kim and Hack-Lyoung Kim** (SMG Seoul National University Boramae Medical Center, Seoul, Seoul); Hun Sik Park (Kyungpook National University Hospital, Daegu); In-Ho Chae (Seoul National University Bundang Hospital, Seongnam, Gyeonggi-do); Moo Hyun Kim (Dong-A University Medical Center, Busan); Myung Ho Jeong (Chonnam National University Hospital, Gwangju, Gwangju); Seungwoon Rha (Korea University Guro Hospital, Seoul); Chongjin Kim (KyungHee University Hospital at Gangdong, Seoul, Seoul); Hyo-Soo Kim and Hae Young Kim (Seoul National University Hospital, Seoul, Seoul); Taekjong Hong (Pusan University Hospital, Busan, Busan); Seung-Jea Tahk (Ajou University Hospital, Suwon, Gyeonggi-Do); Youngkwon Kim (Dongguk University Medical Center, Goyang-si, Gyeonggi-Do).

**Latvia (80 patients enrolled)** Arija Busmane (Adoria, Sabiedriba ar ierobežotu atbildību, Riga); Natalija Pontaga (SIA "Daugavpils reģionālā slimnīca, Daugavpils); Aldis Strelnieks (Rīgas Austrumu klīniskā universitātes slimnīca, SIA, Riga); Iveta Mintale (Pauls Stradiņš Klīniskā Universitātes Hospital, Riga); Iveta Sīme (Regional Hospital of Liepāja, Liepāja).

**Lithuania (188 patients enrolled)** Zaneta Petruilionienė (Vilnius University Hospital Santaros klinikos, Vilnius); Roma Kavaliauskienė (Clinic of Cardiology and Rehabilitation, Klaipėda); Ruta Jurgaitienė (Hospital of Lithuanian University of Health Sciences, Kaunas); Gintarė Sakalytė and Rimvydas Slapikas (Hospital of Lithuanian University of Health Sciences, Kaunas); Sigute Norkiene (Klaipėda Seamen's hospital, Klaipėda); Nerijus Misonis (Private Medicine Center Kardivita, Vilnius); Aleksandras Kibarskis (Private Cardiology Clinic Sirdies Namai, Vilnius); Raimondas Kubilius (Elite Medica, Kaunas).

**Macedonia, The Former Yugoslav Republic of (132 patients enrolled)** Stojko Bojovski (Cardiological Diagnostic Center, Tetovo); Sasko Kedev (University Clinic of Cardiology, Skopje); Nensi Lozance (Clinical hospital dr. Trifun Panovski, Bitola, Bitola); Aleksandar Kjovalkoski (Military medical Center, Skopje); Snezana Doncovska (PHI Clinical hospital Shtip, Shtip).

**Malaysia (110 patients enrolled)** Tiong Kiam Ong (Sarawak General Hospital, Kuching); Sazzli Kasim (Universiti Teknologi MARA (UiTM), Sungai Buloh Campus, Sungai Buloh, Selangor); Oteh Maskon (Hospital Universiti Kebangsaan Malaysia, Kuala Lumpur); Balachandran Kandasamy (Institut Jantung Negara, Kuala Lumpur, Kuala Lumpur); Khalid Yusoff (Universiti Teknologi MARA (UiTM) Selayang Campus, Batu Caves and UCSI University); Houg B Liew (Queen Elizabeth Hospital II, Kota Kinabalu); Wan Mohd Izani Wan Mohamed (Hospital Universiti Sains Malaysia, Kota Bharu).

**Mexico (349 patients enrolled)** Armando García Castillo (Cardiolink Clin Trials S.C., Monterrey, Nuevo León); Gabriel Arturo Ramos López (Medical Office, Guadalajara, Jalisco); Jorge Carrillo Calvillo (Hospital Central "Dr. Ignacio Morones Prieto", San Luis Potosí, San Luis Potosí); Pedro Fajardo Campos (CINAME Centro de Investigación Cardiovascular y Metabólica, Tijuana, Baja California Norte); Juan

Carlos Núñez Fragoso (Lahoja Asociación para la Investigación y la Farmacovigilancia S.C., Durango, Durango); Edmundo Alfredo Bayram Llamas (Fundación Cardiovascular de Aguascalientes A.C., Aguascalientes, Aguascalientes); Marco Antonio Alcocer Gamba (Centro de Estudios Clínicos de Querétaro, S.C., Querétaro, Querétaro); Jaime Carranza Madrigal (Unidad de Prevención y Atención Metabólica, Morelia, Michoacan); Luis Gerardo González Salas (Centro para el Desarrollo de la Medicina y de Asistencia Médica Especializada, S.C., Culiacán, Sinaloa); Enrique López Rosas (Centro de Alta Especialidad "Dr. Rafael Lucio", Jalapa, Veracruz); Belinda González Díaz (UMAE Hospital de Cardiología del Centro Médico Nacional Siglo XXI., Ciudad de México, México); Eduardo Salcido Vázquez (Antiguo Hospital Civil de Guadalajara "Fray Antonio Alcalde", Guadalajara, Jalisco); Alfredo Nacoud Ackar (Hospital Universitario "Dr. José Eleuterio González", Monterrey, Nuevo León); Guillermo Antonio Llamas Esperón (Hospital Cardiológica Aguascalientes, Aguascalientes, Aguascalientes); Carlos Rodolfo Martínez Sánchez (Instituto Nacional de Cardiología "Ignacio Chávez", Ciudad de México, México); María Guerrero De Leon (Avix Investigación Clínica, S.C., Monterrey, Nuevo León); Rodrigo Suarez Otero (INBIOMEDYC Toluca, Toluca, México); Guillermo Fanghanel Salmón (Clínica Integral del Paciente Diabético y Obeso, Ciudad de México, México); Jesús Antonio Pérez Ríos (OSMO Oaxaca Site Management Organization S.C., Oaxaca, Oaxaca); José Angel Garza Ruíz (IMED Internal Medicine Clin Trials, Monterrey, Nuevo León).

**Netherlands (686 patients enrolled)** Marco Alings (Amphia Ziekenhuis Molengracht, Breda); Robert W Breedveld, Margriet Feenema-Aardema and Alida Borger-Van Der Burg (Medisch Centrum Leeuwarden, Leeuwarden); Pieter AM Hoogslag (Diaconessenhuis Meppel, Meppel); Harry Suryapranata (Radboud University Medical Center, Nijmegen); Antonius Oomen, Paulus Van Haelst and Margriet Feenema-Aradema (D & A Research, Sneek); Jacobijne J Wiersma and Dirk Basart (Vasculair Onderzoeks Centrum BV, Hoorn); Ruud MA Van Der Wal and Peter Zwart (Ziekenhuis Bernhoven, Uden); Pascalle Monraats and Henricus Van Kesteren (Admiraal De Ruijter Ziekenhuis, Goes); Ioannis Karalis and Johan Jukema (Leiden University Medical Center, Leiden); Gerardus JE Verdel (Spaarne Gasthuis, Haarlem); Bart RG Brueren (Catharina Ziekenhuis, Eindhoven); Roland PTh Troquay (VieCuri Medisch Centrum Voor Noord-Limburg, Venlo); Eric P Viergever (Groene Hart Ziekenhuis, Gouda); Nadea YY Al-Windy (Gelre Ziekenhuis Zutphen, Zutphen); Gerard L Bartels (Martini Ziekenhuis, Groningen); Jan H Cornel (Noordwest Ziekenhuisgroep, locatie Alkmaar, Alkmaar); Walter RM Hermans (St Elisabeth Ziekenhuis, Tilburg); Johannes PR Herrman (OLVG locatie Oost, Amsterdam); Robert J Bos (Bravis Ziekenhuis, Roosendaal); Reginald GEJ Groutars (OLVG locatie Oost, Amsterdam); Coenraad C Van Der Zwaan (Ziekenhuis Rivierenland, Tiel); Refik Kaplan and Raymond Lionarons (Röpcke-Zweers Ziekenhuis, Hardenberg); Eelko Ronner (Reinier De Graaf Gasthuis, Delft); Bjorn E Groenemeijer (Gelre Diagnostisch Centrum, Apeldoorn); Patrick NA Bronzwaer (Zaans Medisch Centrum, Zaandam); Anho AH Liem (Sint Franciscus Gasthuis, Rotterdam); Bernard JWM Rensing (St Antonius Ziekenhuis, Nieuwegein); Marcel JJA Bokern (Waterlandziekenhuis, Purmerend); Remco Nijmeijer (Tjongerschans Hospital Heerenveen, Heerenveen); Ferry MRJ Hersbach (Maasstad ziekenhuis, Rotterdam); Frank F Willems (Rijnstate Ziekenhuis, Arnhem); Antonius TM Gosselink and Saman Rasoul (Isala Klinieken, Zwolle).

**New Zealand (257 patients enrolled)** John Elliott (Christchurch Hospital, Christchurch, Canterbury); Gerard Wilkins (Dunedin Hospital, Dunedin, Otago); Raewyn Fisher (Waikato Hospital, Hamilton, Waikato); Douglas Scott (Middlemore Hospital, Otahuhu, Auckland); Hamish Hart (North Shore Hospital, Takapuna, Auckland); Ralph Stewart (Auckland City Hospital, Grafton, Auckland); Scott Harding (Wellington Hospital, Newtown, Wellington); Ian Ternouth (Taranaki Base Hospital, New Plymouth, Taranaki); Nicholas Fisher and Samuel Wilson (Nelson Hospital, Nelson, Nelson); Denise Aitken (Lakes District Health Board, Rotorua, Bay of Plenty); Russell Anscombe (Hutt Valley District Health Board, Lower Hutt, Wellington); Laura Davidson (Palmerston North Hospital, Palmerston North, Manawatu-Wanganui).

**Norway (97 patients enrolled)** Tadeusz Tomala (Svelvik Legesenter, Svelvik); Ottar Nygård (Helse Bergen HF, Bergen); Jon Arne Sparby (Sykehuset innlandet HF, Kongsvinger, Kongsvinger); Kjell Andersen (Sykehuset Innlandet HF, Hamar, Hamar); Lars Gullestad (Oslo Universitetssykehus HF, Oslo); Jarle Jortveit (Sørlandet sykehus HF Arendal, Arendal); Peter S Munk and Erlend gyllensten Singsaas (Stavanger Helseforskning AS, Stavanger); Sigrun Halvorsen (Oslo Universitetssykehus HF, Oslo); Ulf Hurtig (Sykehuset Innlandet HF, Tynset).



**Peru (208 patients enrolled)** Roger M Correa Flores (Hospital Nacional IV Alberto Sabogal Sologuren, Callao); Jorge R Calderon Ticona (Novocardio Centro de Investigacion y Atencion Cardiovascular, Lima); Julio R Durand Velasquez (Centro de Invesgaciones Médicas - Hospital Maria Auxiliadora, Lima); Sandra A Negrón Miguel (Clínica Internacional Sede San Borja, Lima); Enrique S Sanabria Perez (Clinica Javier Prado, Lima); Jesus M Carrion Chambilla (Hospital Nacional Arzobispo Loayza, Lima); Carlos A Chavez Ayala (Hospital Nacional Daniel Alcides Carrión, Callao); Reynaldo P Castillo Leon (Clínica San Gabriel - Consultorio 316, Lima); Rolando J Vargas Gonzales (Clínica Virgen María Auxiliadora, Piura); Jose D Hernandez Zuniga (Clinica Medica San Martin E.I.R.L., Ica); Luis A Camacho Cosavalente (Clínica Peruano Americana, Trujillo); Jorge E Bravo Mannucci (Clínica Divino Niño Jesus Orden de Malta.); Javier Heredia Landeo (Clinica Angloamericana, Clinica Angloamericana, Lima); Nassip C Llerena Navarro (Hospital Nacional Carlos Alberto Seguín Escobedo, Arequipa); Yudy M Roldan Concha (Hospital Nacional Hipolito Unanue, Lima); Víctor E Rodriguez Chavez (Hospital Central de la Fuerza Aerea Peruana, Lima); Henry A Anchante Hernandez (Hospital Nacional Cayetano Heredia, Lima); Carlos A Zea Nunez (Hospital Nivel IV Adolfo Guevara Velasco, Cuzco); Walter Mogrovejo Ramos (Instituto Neuro Cardiovascular de las Americas, Lima).

**Philippines (116 patients enrolled)** Arthur Ferrolino (Philippine Heart Center, Quezon City); Rosa Allyn G Sy (Ospital ng Makati Diabetes Clinic, Makati City); Louie Tirador (St. Paul's Hospital, Iloilo City); Rody G. Sy (Cardinal Santos Medical Center, San Juan); Generoso Matiga (Perpetual Succour Hospital/Cebu Heart Institute, Cebu City); Raul Martin Coching (Davao Doctors Hospital, Davao); Alisa Bernan (Community Health and Development Cooperative Hospital., Davao City); Gregorio Rogelio (St. Luke's Medical Center, Quezon); Dante D. Morales (Manila Doctors Hospital, Manila); Edgar Tan (Cebu Doctors University Hospital, Cebu City); Dennis Jose Sulit (Quirino Memorial Medical Center, Quezon City).

**Poland (926 patients enrolled)** Adrian Włodarczak (Miejskie Centrum Zdrowia, Lubin.); Krystyna Jaworska, Grzegorz Skonieczny (Wojewodzki Szpital Zespólny im. L. Rydygiera, Torun.); Lidia Pawłowicz (Prywatne Centrum Kardiologii, Torun); Paweł Wojewoda (Poradnia Kardiologiczna Centrum Medyczne Ogrodowa, Skierniewice.); Benita Busz-Papież (Indywidualna Specjalistyczna Praktyka Lekarska, Szczecin); Janusz Bednarski (Samodzielny Pub. Spec. Szp. Zachodni im. Jana Pawła II, Grodzisk Mazowiecki); Aleksander Goch (10 Wojskowy Szpital Kliniczny z Poliklinika, Bydgoszcz); Paweł Staneta (NZOZ Specjalistyczna Przychodnia Lekarska „Medikard”, Plock); Elżbieta Dulak (NZOZ "Śródmieście" Sp. z o.o., Gdynia); Andrzej Budaj (Centrum Medyczne Kształcenia Podyplomowego, Szpital Grochowski im. dr med. Rafała Maszaka, Warszawa); Krzysztof Samiński (Centrum Kardiologiczne "Pro Corde" Sp. z o.o., Wrocław); Włodzimierz Krasowski (COPERNICUS Podmiot Leczniczy Sp. z o.o. Szpital Sw. Wojciecha Gdansk); Wanda Sudnik (Centrum Medyczne Dr Sudnik s.c. W&J Sudnik, Sokolka); Aleksander Zurawski (Małopolskie Centrum Sercowo-Naczyniowe, Chrzanów); Marcin Skorski (SPZOZ w Lecznicy, Lecznica); Roman Lysek (Przychodnia Lecznice CITOMED Sp. z o.o., Torun); Beata Miklaszewicz (B.Miklaszewicz & D.Dabrowski "CARDIAMED" Spółka Jawna, Legnica); Jacek Kubica (Szpital Uniwersytecki im. dr A. Jurasza, Bydgoszcz); Jan Andrzej Lipko (5 Wojskowy Szpital Kliniczny z Poliklinika SPZOZ, Kraków); Edyta Kostarska-Srokosz (Centrum Medyczne „Nasze Zdrowie”, Warszawa); Marek Piepiorka (Gabinet Kardiologiczno-Internistyczny, Gdynia); Anna Drzewiecka (NZOZ "Centrum-Med" s.c., Czeladź); Ryszard Sciborski (SPZOZ, Olawa); Arkadiusz Stasiński (NZOZ Neuro-Kard Ilkowski i Partnerzy, Poznań); Tomasz Blicharski (Lubelskie Centrum Diagnostyczne, Świdnik); Leszek Bystryk (Wojewodzkie Centrum Szpitalne Kotliny Jeleniogorskiej, Jelenia Góra); Michał Szpajer (Poliklinika ewi-, Gdynia); Marek Korol (Osrodek Medycyny Rodzinnej Sp. z o.o., Sobotka); Tomasz Czerski (SPZOZ w Węgrowie, Węgrów); Ewa Mirek-Bryniarska (Szpital Specjalistyczny im. J. Dietla, Kraków); Jacek Gniot (SPZOZ w Puławach, Puławy); Andrzej Lubinski (Indywidualna Specjalistyczna Praktyka Lekarska A. Lubinski, Łódź); Jerzy Gorny (Wojewodzki Szpital Specjalistyczny, Olsztyn); Edward Franek (Clinical Research Group Sp. z o.o., Warszawa); Grzegorz Raczak (Centrum Kardiologii Uniwersyteckie Centrum Kliniczne, Gdansk); Hanna Szwed (Instytut Kardiologii, Klinika Choroby Wienicowej, Warsaw).

**Portugal (174 patients enrolled)** Pedro Monteiro (Centro Hosp e Univ de Coimbra - Hosp da Univ de Coimbra, Coimbra); Jose Mesquita Bastos (Centro Hospitalar de Baixo Vouga, Aveiro); Helder H Pereira (Hospital Garcia De Orta, Almada); Dinis Martins (Hospital Do Divino Espírito Santo, Ponta Delgada); Joao Morais (Centro Hospitalar Leiria Pombal, Leiria); Filipe Seixo (Centro Hospitalar De Setubal EPE,

Setubal); Carlos Mendonça (Hospital de Vila Franca de Xira, Vila Franca de Xira); Ana Botelho and Francisca Caetano (Centro Hosp e Univ de Coimbra - Hosp da Univ de Coimbra, Coimbra).

**Romania (145 patients enrolled)** Bogdan Minescu (Spitalul Judetean De Urgenta Braila, Braila); Octavian Istratoaie (Spitalul Clinic Judetean De Urgenta, Craiova); Dan N Tesloianu (S.C. CARDIOMED SRL, Iasi); Maria Dorobantu (Spitalul Clinic De Urgenta Bucuresti, Bucuresti); Gabriel Cristian and Silviu Dumitrescu (SCUMC "dr. Carol Davila", Bucharest); Cristian GC Podoleanu (Podoleanu G. Cristian Gheorghe Calin, Targu Mures); Mircea CA Constantinescu (S.C. Medcon S.R.L., Buzau); Cristina M Bengus (Spitalul Judetean de Urgenta "Sf. Pantelimon" Focsani, Focsani); Constantin Militaru (Cardiomed SRL, Craiova); Doina Rosu (Spitalul Clinic Judetean de Urgenta "Pius Branzeu", Timisoara); Irinel R Parepa (Spitalul Clinic Judetean de Urgenta Constanta, Constanta); Adrian V Matei (Institutul de Urgenta pentru Boli Cardiovasculare si Transpl, Targu Mures); Tom M Alexandru and Mihaela Malis (Impatients SRL, Codlea); Ioan Coman (Alcor Med Srl, Bucuresti); Rodica Stanescu-Cioranu (Clinica Angiomed SRL, Bucuresti); Doina Dimulescu (Spitalul Clinic De Urgenta "elias", Bucuresti).

**Russian Federation (1109 patients enrolled)** Yury Shvarts (Faculty Therapy Department of Clinical Hospital n.a. Mirotvo, Saratov); Olga Orlikova (Regional Clinical Cardiology Dispensary, Saratov); Zhanna Kobalava (City Clinical Hospital #64, Moscow); Olga L Barbarash (Scientific & Research Institute of Complex Problems of Cardi, Kemerovo); Valentin Markov (Research Institute Of Cardiology, Tomsk); Nadezhda Lyamina (Saratov Scientific Research Institute Of Cardiology, Saratov); Alexander Gordienko (Medical Military Academy n.a.S.M.Kirov, Saint - Petersburg); Konstantin Zrazhevsky (City Hospital #38 named after Semashko N.A, Saint Petersburg); Alexander Y Vishnevsky (Pokrovskaya City Hospital, St-Petersburg); Victor Gurevich (Central Medical Unit #122, St-Petersburg); Raisa Stryuk (City Clinical Hospital No. 71, Moscow); Nikita V Lomakin (Central Clinical Hospital with Polyclinic, Moscow); Igor Bokarev and Tatiana Khlevchuk (City Clinical Hospital n.a. Eramishantsev, Moscow); Sergey Shalaev (State Autonomous Institution of Healthcare of Tyumen region, Tyumen); Larisa Khaisheva (City Emergency Hospital #2, Rostov-On-Don); Petr Chizhov (Therapeutic Department of Clinical Hospital n.a. N.A. Semash, Yaroslavl); Inna Viktorova (Omsk City Clinical Hospital 1, Omsk); Natalya Osokina and Vladimir Shchekotov (State Budgetary Healthcare Institution Clinical Medical Sani, Perm); Evgenia Akatova (City Clinical Hospital#40of the Department of Healthcare of, Moscow); Galina Chumakova (Altay Regional Cardiology Dispensary, Barnaul); Igor Libov (City Clinical Hospital n.a.Botkin ofMoscow Healthcare depart, Moscow); Mikhail I Voevoda (Institute of Therapy and preventive medicine, Novosibirsk); Tatyana V Tretyakova (City Clinical Hospital #25, Novosibirsk); Evgeny Baranov (City Clin. Hosp. #5 of Nizhni Novgorod district, Nizhny Novgorod); Sergey Shustov (Medical Military Academy n.a.S.M.Kirov, Saint - Petersburg); Sergey Yakushin (Ryazan Regional Clinical Cardiology Dispensary, Ryazan); Ivan Gordeev (City Clinical Hospital #15 n.a. Filatov, Moscow); Niiaz Khasanov (State Med. Uni. based on MSHI City Clinical Hospital #7, Kazan); Olga Reshetko (Regional Clinical Hospital, Saratov); Tatiana Sotnikova (City Clinical Hospital n.a.Botkin ofMoscow Healthcare depart, Moscow); Olga Molchanova (National Research Center For Preventive Medicine, Moscow); Konstantin Nikolaev (City Clinical Hospital #19, Novosibirsk); Liudmila Gapon (Tyumen Cardiology Center, Tyumen); Elena Baranova (St. Petersburg State Med. Univ. named for I. P. Pavlov, Saint-Petersburg); Zaur Shogenov (City Clinical Hospital n.a. Veresaev, Moscow); Elena Kosmachova (Regional Clinical Hospital #1, Krasnodar); Yuriy Karpov (Voronezh City Clin. Hosp. of Emergency Medical Care #1, Voronezh); Yuri Karpov (Russian Cardiological Scientific-Productive Complex, Moscow); Anton Povzun (Saint-Petersburg I.I. Dzhanelidze Research Institute of Emer, Saint-Petersburg); Liudmila Egorova (Saint Luke's Clinical Hospital, Saint Petersburg); Vadim V Tyrenko (Military Medical Academy n.a. Kirov, St-Petersburg); Igor G Ivanov and Masterov Ilya (St. George the Martyr City Hospital, Saint-Petersburg); Sergey Kanorsky (Krasnodar City Clinical Urgent Care Hospital, Krasnodar).

**Serbia (255 patients enrolled)** Dragan Simic (Clinical Centre of Serbia, Belgrade); Nikola Ivanovic (General Hospital Sremska Mitrovica, Sremska Mitrovica); Goran Davidovic (Clinical Centre Kragujevac, Kragujevac); Nebojsa Tasic (Institute for Cardiovascular Diseases Dedinje, Belgrade); Milika R. Asanin (Clinical Centre of Serbia, Belgrade); Stevo Stojic (General Hospital Pancevo, Pancevo); Svetlana R. Apostolovic (Clinical Center Nis, Nis); Stevan Ilic (Institute for treatment and rehabilitation "Niska Banja", Nis); Biljana Putnikovic Tosic (Clinical Hospital Centre Zemun, Belgrade); Aleksandar Stankovic (General Hospital Leskovac, Leskovac); Aleksandra Arandjelovic (Clinical Hospital Centre Zvezdara, Belgrade); Slavica Radovanovic and Branislava Todic (Clinical-Hospital Center Bezanijska Kosa, Belgrade); Arsen

D. Ristic (Clinical Centre of Serbia, Belgrade); Jovan Balinovac (General Hospital Valjevo, Valjevo); Dragan V. Dincic (Military Medical Academy, Belgrade); Petar Seferovic and Ana Karadzic (Clinical Center of Serbia, Belgrade); Slobodan Dodic (Institute of Cardiovascular Diseases of Vojvodina, Sremska Kamenica); Sinisa Dimkovic and Tamara Jakimov (Clinical Hospital Center Bezanijska Kosa, Belgrade).

**Singapore (49 patients enrolled)** Terrance Chua (National Heart Centre, Singapore); Kian-Keong Poh (National University Hospital, Singapore); Hean Yee Ong and Justin Tang I-Shing ( Khoo Teck Puat Hospital, Singapore).

**Slovakia (340 patients enrolled)** Karol Micko (Interna a kardiologicka klinika, Kardiomed s.r.o., Lucenec); Jan Nociar (Interna a kardiologicka ambulancia KARDIO1, s.r.o., Lucenec); Daniel Pella (Cardio D&R s.r.o., Kosice); Peter Fulop (Kardiologicka a interna ambulancia Interna SK, s.r.o., Svidnik); Marian Hranai (Kardiologicka ambulancia, Nitra); Juraj Palka (Kardiologicka a interna ambulancia CORP, s.r.o., Kosice); Juraj Mazur (Kardiologicka a interna ambulancia Kardio-onkologia, s.r.o., Dolny Kubin); Ivan Majercák (Sukromna interna a kardiologicka ambulancia, Kosice); Andrej Dzupina (Alian, s.r.o., Bardejov); František Fazekas (Kardiologicka ambulancia Medicentrum Heart, s.r.o., Kralovsky Chlmec); Jozef Gonsorcik (Nestatna interna a kardiologicka ambulancia, Kosice); Viliam Bugan (Medivasa s.r.o., Zilina); Jan Murin (I. Interna klinika, Univerzitna nemocnica Bratislava, Bratislava); Juraj Selecky (Sciens, s.r.o., Trebisov); Gabriel Kamensky (V. Interna klinika Univerzitna nemocnica Bratislava Ruzinov, Bratislava); Jaroslava Strbova (Kardiologicka, interna a sonograficka amb. Kardio-Sanus, sro, Bratislava); Rudolf Smik (Interna, kardiologicka, angiologicka ambul. Medikard, s.r.o., Presov); Andrej Dukat (Univerzitna nemocnica Bratislava, Bratislava); Peter Olexa (Topcare s.r.o, Kosice).

**Slovenia (36 patients enrolled)** Ivan Žuran (General Hospital Celje, Celje); Janez Poklukar (General Hospital Jesenice, Jesenice); Nataša Črnič Šuligoj (General Hospital Izola, Izola); Matija Cevc (Department of Vascular Medicine, Division of Medicine, University Medical Centre Ljubljana, Ljubljana); Zlatko Fras (Preventive Cardiology Unit, Department of Vascular Medicine, Division of Medicine, University Medical Centre Ljubljana, Ljubljana; Faculty of Medicine, University of Ljubljana, Ljubljana).

**Republic of South Africa (505 patients enrolled)** Henry P Cyster (TREAD Research CC, Parow); Naresh Ranjith (Nash Ranjith Research Centre, Durban); Clive Corbett (Panorma Medi-Clinic, Western Cape); Junaid Bayat (Suite 502, Durban Medical Centre, Durban); Ellen Makoali Makotoko and Hendrik du Toit Theron (Cardiology Research, Bloemfontein); Ilse E Kapp (Cardiology Clinical Research, Alberton); Matthys M de V Basson (Tiervlei Trial Centre, Bellville); Hanlie Lottering and Dina Van Aswegen (SCION Clinical Research, Pretoria); Louis J Van Zyl (Clinical Projects Research SA (Pty) Ltd, Worcester); Peter J Sebastian (Dr PJ Sebastian Private Practice, Chatsworth); Thayabran Pillay (Vincent Palotti Hospital, Cape Town); Jan A Saaiman (Kuils River Private Hospital, Kuilsrivier, Western Cape); Patrick J Commerford (Groote Schuur Hospital, Cape Town); Soraya Cassimjee and Garda Riaz (Dr Garda Cardiology Practice, Johannesburg); Iftikhar O Ebrahim (Unitas Hospital, Pretoria); Mahomed Sarvan (Drs MI Sarvan, R Moodley & Partners incorporated, Tongaat); Joseph H Mynhardt (Dr. J Mynhardt, Private Practice, Kimberley); Anthony J Dalby (Milpark Hospital, Johannesburg); Helmuth Reuter (Winelands Medical Research Centre, Stellenbosch); Rajendran Moodley (Netcare Umhlanga Medical Centre, Durban).

**Spain (826 patients enrolled)** Manuel Vida (Hospital Virgen del Mar, Almería, Almería); Angel R. Cequier Fillat (Hospital Universitari de Bellvitge, Hospitalet de Llobregat, Barcelona); Vicente Bodí Peris (Hospital Clínico Universitario, Valencia, Valencia); Francisco Fuentes Jimenez (Hospital Universitario Reina Sofía, Córdoba, Córdoba); Francisco Marín (Hospital Virgen De La Arrixaca, Murcia, Murcia); Jose M Cruz Fernández and Rafael Jesus Hidalgo Urbano (Hospital Universitario Virgen Macarena, Sevilla, Sevilla); Blas Gil-Extremera and Pablo Toledo (Complejo Hospitalario Universitario de Granada, Granada); Fernando Wornier Diz (Hospital Universitari Arnau de Vilanova, Lleida, Lérida); David Garcia-Dorado (Hospital Vall d'Hebron, Barcelona, Barcelona); Andres Iñiguez (Hospital Alvaro Cunqueiro, Vigo); José Tuñón Fernández (Fundación Jiménez Díaz, Madrid, Madrid); Jose R Gonzalez-Juanatey (Hospital Clínico Universitario de Santiago, Santiago de Compostela); Javier Fernandez Portales (Hospital San Pedro de Alcántara, Cáceres, Cáceres); Fernando Civeira Murillo (Hospital Miguel Servet, Zaragoza, Zaragoza); Laia Matas Pericas (Hospital de la Santa Creu i Sant Pau, Barcelona, Barcelona); Jose Luis Zamorano (Hospital Universitario Ramon y Cajal, Madrid, Madrid); Manuel De Mora Martin

(Hospital Carlos Haya, Málaga, Málaga); Jordi Bruguera Cortada (Hospital Del Mar, Barcelona, Barcelona); Joaquin J Alonso Martin and Jose Maria Serrano Antolin (Hospital Universitario De Fuenlabrada, Fuenlabrada); José R De Berrazueta Fernández and José Antonio Vázquez de Prada (Hospital Universitario Marques De Valdecilla, Santander, Santander); Jose Francisco Díaz Fernández (Hospital Juan Ramón Jiménez, Huelva, Huelva); José Alberto García Lledó (Hospital Príncipe de Asturias, Alcalá de Henares, Madrid); Juan Cosín Sales (Hospital Arnau De Vilanova, Valencia, Valencia); Javier Botas Rodriguez (Hospital Universitario Fundación Alcorcón, Madrid, Madrid); Gabriel Gusi Tragant (Hospital de Sabadell - Corporacio Sanitaria Parc Tauli, Sabadell, Barcelona); Amparo Benedicto (Hospital Universitario la Princesa, Madrid, Madrid); Carlos Gonzalez-Juanatey (Hospital Universitario Lucus Augusti, Lugo, Lugo); Mercedes Camprubí Potau (Hospital Joan XXIII, Tarragona, Tarragona); Ignacio Plaza Perez (Hospital Universitario Infanta Sofia, San Sebastian de los Reyes); César Morís De La Tassa (Hospital Universitario Central de Asturias, Oviedo, Asturias); Pablo Loma-Osorio Rincon (Hospital Universitari de Girona Dr. Josep Trueta, Girona); Javier Balaguer Recena (Hospital General Universitario de Guadalajara, Guadalajara, Guadalajara); Juan M Escudier (Hospital Universitario Puerta De Hierro Majadahonda, Majadahonda); Antonio Coca Payeras (Hospital Clinic i Provincial, Barcelona); Norberto Alonso Orcajo (Complejo asistencial de Leon, Leon); Pedro Valdivielso (Hospital Virgen de la Victoria, Malaga).

**Sri Lanka (314 patients enrolled)** Godwin Constantine (University of Colombo, Colombo); Ruvaiz Haniffa (University of Colombo, Colombo); Nirmali Tissera (National Hospital of Sri Lanka, Colombo); Stanley Amarasekera and Chandrike Ponnampereuma (Colombo South Teaching Hospital, Kalubowila); Nimali Fernando and Kaputella Fernando (North Colombo Teaching Hospital, Ragama); Jayanthimala Jayawardena (Institute of Cardiology, National Hospital of Sri Lanka, Colombo); Santharaj Wijeyasingam and Gotabhaya Ranasinghe (Institute of Cardiology, National Hospital of Sri Lanka, Colombo); Ruvan Ekanayaka and Sepalika Mendis (Institute of Cardiology, National Hospital of Sri Lanka, Colombo); Vajira Senaratne (Institute of Cardiology, National Hospital of Sri Lanka, Colombo); Gnanamoorthy Mayurathan (Kandy Teaching Hospital, Kandy); Ajantha Rajapaksha and Thilak Sirisena (Kurunegala Teaching Hospital, Kurunegala); Jagath I Herath (Sri Jayawardenapura General Hospital, Nugegoda); Naomali Amarasena (Sri Jayawardenapura General Hospital, Nugegoda).

**Sweden (250 patients enrolled)** Stefan Berglund (Falun Lasarett, Falun); Gundars Rasmanis (Karolinska University Hospital Huddinge, Stockholm); Emil Hagström and Ola Vedin (Dept of Medical Sciences, and Uppsala Clinical Research Centre, Uppsala University, Uppsala); Nils Witt (Södersjukhuset, Stockholm); Georgios Mourtzinis (Sahlgrenska University Hospital, Mölndal); Peter Nicol (Närsjukhuset Köping, Köping); Ole Hansen (Skåne University Hospital, Malmö); Stefano Romeo (Sahlgrenska University Hospital, Göteborg); Steen Agergaard Jensen (Blekingesjukhuset Karlshamn, Karlshamn); Ingemar Torstensson (Centralsjukhuset Kristianstad, Kristianstad); Ulf Ahreman (Hallands sjukhus Halmstad, Halmstad); Torbjörn Sundelin (Länssjukhuset Sundsvall-Härnösand, Sundsvall).

**Switzerland (88 patients enrolled)** Tiziano Moccetti (Cardiocentro Ticino, Lugano); Christian Müller (Universitätsspital Basel, Basel); Francois Mach (Hopitaux Universitaires de Geneve, Geneve); Ronald Binde, Ulf Landmesser and Oliver Gämperli (Universitätsspital Zürich, Zürich).

**Taiwan (93 patients enrolled)** Chern-En Chiang (Taipei Veterans General Hospital, Taipei); Wei-Chuan Tsai (National Cheng Kung University Hospital, Tainan); Kwo-Chang Ueng (Chung-Shan Medical University Hospital, Taichung); Wen-Ter Lai (Kaohsiung Medical University Chung-Ho Memorial Hospital, Kaohsiung); Ming-En Liu (HsinChu Mackay Memorial Hospital, Hsinchu); Juey-Jen Hwang (National Taiwan University Hospital, Taipei); Wei-Hsian Yin (Cheng-Hsin General Hospital, Taipei); I-Chang Hsieh and Ming-Jer Hsieh (Chang Gung Memorial Hospital - Linkou, Taoyuan Hsien); Wei Hsiang Lin (Tri-Service General Hospital - Taipei, Taipei); Jen-Yuan Kuo (Mackay Memorial Hospital, Taipei); Tsuei-Yuan Huang (Chi-Mei Medical Center, Tainan); Chih-Yuan Fang (Kaohsiung Chang Gung Memorial Hospital, Kaohsiung).

**Thailand (161 patients enrolled)** Pinij Kaewsuwanna (Maharat Nakhonratchasima Hospital, Moug); Wasant Soonfuang (Police General Hospital, Pratumwan); Woravut Jintapakorn (Songklanagarind Hospital, Hat Yai); Apichard Sukonthasarn (Chiang Mai University, Muang, Chiang Mai); Piyamitr Sritara (Ramathibodi Hospital, Bangkok); Nattawut Wongpraparut (Siriraj Hospital, Mahidol University, Bangkok-Noi); Krisada Sastravaha (Bhumibol Adulyadej Hospital, Bangkok); Nakarin Sansanayudh

(Phramongkutklo Hospital, Bangkok); Wirash Kehasukcharoen (Central Chest Institute, Nonthaburi); Dilok Piyayotai (Thammasat University Hospital, Klong Luang); Paiboon Chotnoparatpat (Vajira Bangkok University Hospital, Bangkok).

**Turkey (78 patients enrolled)** Ahmet Camsari (Mersin Universty School Of Medicine Department Of Cardiology, Mersin); Hakan Kultursay (Ege University Medical Faculty Department of Cardiology, IZMIR); Sema Guneri (Dokuz Eylul Universitesi Tip Fakultesi, Izmir); Bulent Mutlu (Marmara Universitesi Pendik Egitim ve Arastirma Hastanesi, Istanbul); Murat Ersanli (Istanbul Universitesi Kardiyoloji Enstitusu, Istanbul); Mustafa Demirtas (Cukurova Universitesi Tip Fakultesi, Adana); Cevat Kirma (Kartal Kosuyolu Yuksek Ihtisas Egitim ve Arastirma Hastanesi, Istanbul); Ertan Ural (Kocaeli Universitesi Tip Fakultesi, Kocaeli); Lale Koldas (Istanbul Universitesi Cerrahpasa Tip Fakultesi, Istanbul).

**Ukraine (639 patients enrolled)** Oleksandr Karpenko (City Clinical Hospital No 1, Kiev); Alexander Prokhorov (City Clinical Hospital #27, Kharkiv); Ihor Vakaluyk (Ivano-Frankivsk Regional Clinical Cardiology Center, Ivano-Frankivsk); Halyna Myshanych (Railway Clinical Hospital #2, "Health Center", Kyiv); Dmytro Reshotko (Kyiv City Oleksandrivska Clinical Hospital, Kyiv); Valeriy Batushkin (Kyiv City Clinical Hospital #5, Cardiology Department, Kyiv); Leonid Rudenko (Kyiv Emergency Care Hospital, Kiev); Ihor Kovalskyi (City Hospital #1, Mykolaiv); Mykola Kushnir (Zhytomyr regional clinical hospital n.a. O.F. Gerbachevskyy, Zhytomyr); Vira Tseluyko (City Clinical Hospital #8, Kharkiv); Yuriy Mostovoy (Vinnitsya City Clinical Hospital 1, Vinnitsya); Mykola Stanislavchuk (Vinnitsia M.I. Pyrohov Regional Clinical Hospital, Vinnytsia); Yulian Kyiak (Lviv Danylo Halytskyi National Medical University, Lviv); Yuriy Karpenko (Odesa Regional Clinical Hospital, Odesa); Yaroslav Malynovsky (Regional Medical Center for Cardiovascular Diseases, Zaporizhia); Andriy Klantsa (Khmelnyskyi Regional Hospital, Khmelnytskyi); Oles Kutniy (Public Institution: Central City Hospital #2, Zhytomyr); Ekaterina Amosova (Kyiv City Oleksandrivska Clinical Hospital, Kyiv); Viktor Tashchuk (Chernivtsi Regional Clinical Cardiology Center, Chernivtsi); Oleh Leshchuk (Lviv Regional Clinical Hospital, Dept. of Internal Medicine, Lviv); Alexander Parkhomenko ("M.D. Strazhesko Institute of Cardiology of AMS of Ukraine", Kiev); Mykola Rishko (Zakarpattia Regional cardiology Dispensary, Uzhgorod); Mykola Kopytsya (State Institution LT Malaya Inst. of Ther. of AMS of Ukraine, kharkiv); Andriy Yagensky (Lutsk City Clinical Hospital, Lutsk); Mykola Vatutin (Donetsk National Medical University named after M. Gorkiy, Donetsk); Andriy Bagriy (Donetsk National Medical University named after M. Gorkiy, Donetsk); Olga M Barna (Polyclinic of adm of med services and rehabilitation of ARTEM, Kyiv); Olexiy Ushakov (City Clinical Hospital #6 of Emergency Medical Care, Simferopol); Georgiy Dzyak (Dnipropetrovsk Regional Clinical Center of Cardiology, Dnipropetrovsk); Borys Goloborodko (City Clinical Hospital # 3, Odessa); Anatolii Rudenko (M.M. Amosov National Institute of Cardiovascular Surgery, Kyiv); Volodymyr Zheleznyy (Sumy City Clinical Hospital #1, Sumy).

**United Kingdom (292 patients enrolled)** Jasper Trevelyan (Worcestershire Royal Hospital, Worcester, Worcestershire); Azfar Zaman (Freeman Hospital, Newcastle Upon Tyne, Tyne and Wear); Kaeng Lee (Birmingham Heartlands Hospital, Birmingham); Andrew Moriarty (Craigavon Area Hospital, Portadown, Armagh); Rajesh K Aggarwal (Basildon and Thurrock University Hospitals, Basildon, Essex); Piers Clifford (Wycombe General Hospital, High Wycombe, Buckinghamshire); Yuk-Ki Wong (St Richard's Hospital, Chichester, West Sussex); Syed MR Iqbal (Surrey and Sussex Healthcare NHS Trust, Redhill); Eduardas Subkovas (Glan Clwyd Hospital, Rhyl, Denbighshire); Denise Braganza (Peterborough and Stamford Hospitals NHS Foundation Trust, Peterborough); David Sarkar (Plymouth Hospitals NHS Trust, Plymouth, Devon); Robert Storey (University of Sheffield, Sheffield, South Yorkshire); Huw Griffiths (Queen Alexandra Hospital, Portsmouth, Hampshire); Sam McClure (City Hospitals Sunderland NHS Foundation Trust, Sunderland); Rangasamy Muthusamy and Simon Smith (The Rotherham NHS Foundation Trust, Rotherham, South Yorkshire); John Kurian (Bradford Teaching Hospitals NHS Foundation Trust, Bradford); Terry Levy (Royal Bournemouth Hospital, Bournemouth, Dorset); Craig Barr (The Dudley Group of Hospitals NHS Foundation Trust, Dudley, West Midlands); Honer Kadr (Queen's Hospital, Romford, Essex); Robert Gerber (Conquest Hospital, St Leonards, East Sussex); Audrius Simaitis (Royal Cornwall Hospitals NHS Trust, Truro, Cornwall); Handrean Soran (St Marys Hospital, Manchester, Greater Manchester); Anthony Mathur (London Chest Hospital, London); Adrian Brodison, Mohammad Ayaz and Muhammad Cheema (University Hospitals of Morecambe Bay NHS Foundation Trust, Cumbria, Cumbria); Richard Oliver and Simon Thackray (Castle Hill Hospital Hull And East Yorkshire Trust, Hull, East Yorkshire); Telal Mudawi, Gohar Rahman, and Ayyaz Sultan (Wrightington,

Wigan and Leigh NHS Foundation Trust, Wigan, Greater Manchester); Timothy Reynolds (Queen's Hospital, Burton On Trent, Staffordshire); David Sharman and David Sprigings (Northampton General Hospital, Northampton, Northamptonshire); Rob Butler (University Hospital Of North Staffordshire, Stoke-On-Trent, Staffordshire); Peter Wilkinson (Ashford & St Peter's Hospitals NHS Foundation Trust, Chertsey); Gregory YH Lip (City Hospital, Birmingham, West Midlands); Julian Halcox, Sean Gallagher and Nicholas Ossei-Gerning (University Hospital Of Wales, Cardiff, South Glamorgan).

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**Supplemental Table 1. Baseline Characteristics According to Duration of Potential Follow-Up.**

Characteristic	Eligible for ≥3 years of follow-up (n = 8242)*	Not eligible for 3 years of follow-up (n = 10 682)*
Age, y	58 (52-65)	58 (52-65)
Female sex	2069 (25.1)	2693 (25.2)
Race†		
White	7055 (85.6)	7969 (74.6)
Asian	585 (7.1)	1913 (17.9)
Black or African American	205 (2.5)	268 (2.5)
Other	397 (4.8)	532 (5.0)
Region of enrollment		
Central and Eastern Europe	2428 (29.5)	3009 (28.2)
Western Europe	1957 (23.7)	2218 (20.8)
Canada/USA	1474 (17.9)	1397 (13.1)
Latin America	1041 (12.6)	1547 (14.5)
Asia	459 (5.6)	1834 (17.2)
Rest of the world	883 (10.7)	677 (6.3)
Medical history before index ACS		
Hypertension	5373 (65.2)	6876 (64.4)
Family history of premature CHD	3114 (37.8)	3659 (34.3)
Myocardial infarction	1753 (21.3)	1886 (17.7)
PCI	1567 (19.0)	1674 (15.7)
CABG	515 (6.3)	532 (5.0)
Stroke	269 (3.3)	342 (3.2)
Peripheral artery disease	380 (4.6)	379 (3.6)
Congestive heart failure	1242 (15.1)	1573 (14.7)
COPD	357 (4.3)	389 (3.6)
Malignant disease	250 (3.0)	282 (2.6)
Diabetes status		
Diabetes mellitus	2287 (27.7)	3157 (29.6)
Prediabetes	3550 (41.1)	4696 (44.0)
Normal	2405 (29.2)	2829 (26.5)
Tobacco smoking status		
Current	2058 (25.0)	2502 (23.4)
Former	3318 (40.3)	4493 (42.1)
Never	2865 (34.8)	3687 (34.5)
Index ACS event		
STEMI	2752 (33.5)	3784 (35.5)
Non-STEMI	4286 (52.1)	4889 (45.8)
Unstable angina	1183 (14.4)	1999 (18.7)

Characteristic	Eligible for ≥3 years of follow-up (n = 8242)*	Not eligible for 3 years of follow-up (n = 10 682)*
PCI or CABG for index ACS	5815 (70.6)	7862 (73.6)
Time from index ACS to randomization, months	2.3 (1.6-3.3)	3.1 (1.9-5.9)
BMI‡	28.2 (25.5-31.4)	27.7 (25.0-30.9)
Medications at randomization		
Lipid-modifying agents		
High-intensity atorvastatin/rosuvastatin	7487 (90.8)	9324 (87.3)
Low-/moderate-intensity atorvastatin/rosuvastatin	535 (6.5)	1072 (10.0)
Other statin	28 (0.3)	18 (0.2)
Ezetimibe	233 (2.8)	321 (3.0)
Aspirin	7866 (95.4)	10 220 (95.7)
P2Y <sub>12</sub> antagonist	7194 (87.3)	9347 (87.5)
Beta-blocker	7019 (85.2)	8971 (84.0)
ACE inhibitor or ARB	6458 (78.4)	8258 (77.3)
Use of a statin during the 3 months immediately before index ACS	2754 (33.4)	3410 (31.9)
Lipid levels at randomization, mg/dL§		
LDL-C	87 (74-104)	86 (73-104)
Non-HDL-C	115 (100-137)	115 (99-137)
Apolipoprotein B	80 (69-93)	79 (69-93)
HDL cholesterol	42 (37-50)	42 (36-50)
Triglycerides	127 (92-181)	131 (96-182)
Lipoprotein(a)	19 (6-56)	22 (7-62)
Hemoglobin A <sub>1c</sub> , %	5.8 (5.5-6.3)	5.9 (5.6-6.4)
GFR, mL/min per 1.73 m <sup>2</sup>	77.0 (66.6-88.6)	79.4 (68.1-91.7)
High-sensitivity C-reactive protein, mg/L	1.7 (0.8-4.1)	1.6 (0.7-3.7)

ACE indicates angiotensin converting enzyme; ACS, acute coronary syndrome; ARB, angiotensin II receptor blocker; BMI, body mass index; CABG, coronary artery bypass graft; CHD, coronary heart disease; COPD, chronic obstructive pulmonary disease; GFR, glomerular filtration rate; HDL, high-density lipoprotein; HDL-C, high-density lipoprotein cholesterol; LDL-C, low-density lipoprotein cholesterol; PCI, percutaneous coronary intervention; STEMI, ST-segment elevation myocardial infarction.

\* Data are expressed as median (interquartile range) or No. (%).

† Race was self-reported.

‡ Calculated as weight in kilograms divided by the square of the height in meters.

§ To convert the values for cholesterol to mmol/L, multiply by 0.02586. To convert the values for triglycerides to mmol/L, multiply by 0.01129.

|| LDL-C was calculated with the Friedewald formula; calculated values <15 mg/dL were confirmed by ultracentrifugation/beta quantification.

**Supplemental Table 2. Adjudicated Causes of Cardiovascular Death.**

	Alirocumab (n = 240)	Placebo (n = 271)	Delta
	Number		
Cause of death			
Sudden cardiac	109	117	-8
Acute myocardial infarction	41	51	-10
Heart failure or cardiogenic shock	29	33	-4
Undetermined	21	26	-5
Stroke			
Hemorrhagic	9	8	+1
Ischemic	10	14	-4
Undetermined	0	2	-2
Other cardiovascular causes	16	14	+2
Cardiovascular procedure	5	4	+1
Cardiovascular hemorrhage	0	2	-2

**Supplemental Table 3. Adjudicated Causes of Noncardiovascular Death.**

Cause of death	Alirocumab (n = 94)	Placebo (n = 121)	Delta
	Number		
Pulmonary	33	47	-14
Primary cause of death = infection	12	19	
Primary cause of death = malignancy	18	22	
Other noncardiovascular	22	28	-6
Primary cause of death = infection	6	11	
Primary cause of death = malignancy	14	14	
Gastrointestinal/hepatobiliary/pancreatic	15	19	-4
Primary cause of death = infection	4	3	
Primary cause of death = malignancy	9	14	
Hemorrhage	3	6	-3
Primary cause of death = malignancy	0	1	
Neurological process not a stroke/hemorrhage	1	4	-3
Primary cause of death = malignancy	1	2	
Suicide	2	5	-3
Noncardiovascular procedure or surgery	3	2	+1
Primary cause of death = infection	1	0	
Primary cause of death = malignancy	0	1	
Accident or trauma	10	8	+2
Renal	5	2	+3
Primary cause of death = infection	2	0	
Primary cause of death = malignancy	1	2	

**Supplemental Table 4. Univariate General Joint Semiparametric Model Results: Total Nonfatal Myocardial Infarction, Stroke, or Unstable Angina, and Noncardiovascular Deaths.**

	<b>HR (95% CI)</b>	<b>P Value</b>
Nonfatal myocardial infarction, stroke, or unstable angina (1034 events for alirocumab vs 1240 for placebo)		
Alirocumab treatment	0.82 (0.74 to 0.91)	0.0002
Noncardiovascular death (94 events for alirocumab vs 121 for placebo)		
Alirocumab treatment	0.76 (0.58 to 1.00)	0.052
Association between nonfatal events: $\hat{\eta}$ (95% CI) = 0.80 (0.75 to 0.85)		<0.0001
Association between nonfatal and fatal events: $\hat{\theta}$ (95% CI) = 2.35 (1.98 to 2.73)		<0.0001

CI indicates confidence interval; HR, hazard ratio.

**Supplemental Table 5 Primary Composite Efficacy Endpoint and its Nonfatal Components (Intention-to-Treat Population) (Excerpted from Schwartz et al<sup>2</sup>).**

Outcome	Alirocumab (n = 9462)	Placebo (n = 9462)	Hazard Ratio (95% CI)	P Value
	Number of patients (%)			
Primary endpoint: coronary heart disease death, nonfatal myocardial infarction, fatal or nonfatal ischemic stroke, or unstable angina requiring hospitalization	903 (9.5)	1052 (11.1)	0.85 (0.78, 0.93)	<0.001
Coronary heart disease death	205 (2.2)	222 (2.3)	0.92 (0.76, 1.11)	0.38
Cardiovascular death	240 (2.5)	271 (2.9)	0.88 (0.74, 1.05)	§*
All-cause death	334 (3.5)	392 (4.1)	0.85 (0.73, 0.98)	§*
Other endpoints†				
Nonfatal myocardial infarction	626 (6.6)	722 (7.6)	0.86 (0.77, 0.96)	†
Fatal or nonfatal ischemic stroke	111 (1.2)	152 (1.6)	0.73 (0.57, 0.93)	†
Unstable angina requiring hospitalization	37 (0.4)	60 (0.6)	0.61 (0.41, 0.92)	†
Ischemia-driven coronary revascularization procedure	731 (7.7)	828 (8.8)	0.88 (0.79, 0.97)	†
Congestive heart failure requiring hospitalization	176 (1.9)	179 (1.9)	0.98 (0.79, 1.20)	†

\*The hierarchical analysis stops after the first non-significant P-value. The widths of the confidence intervals for the subsequent end points have not been adjusted for multiplicity, so the intervals for the outcomes should not be used to infer definitive treatment effects

†The analysis for other end points has not been adjusted for multiplicity; therefore, no P values are reported.

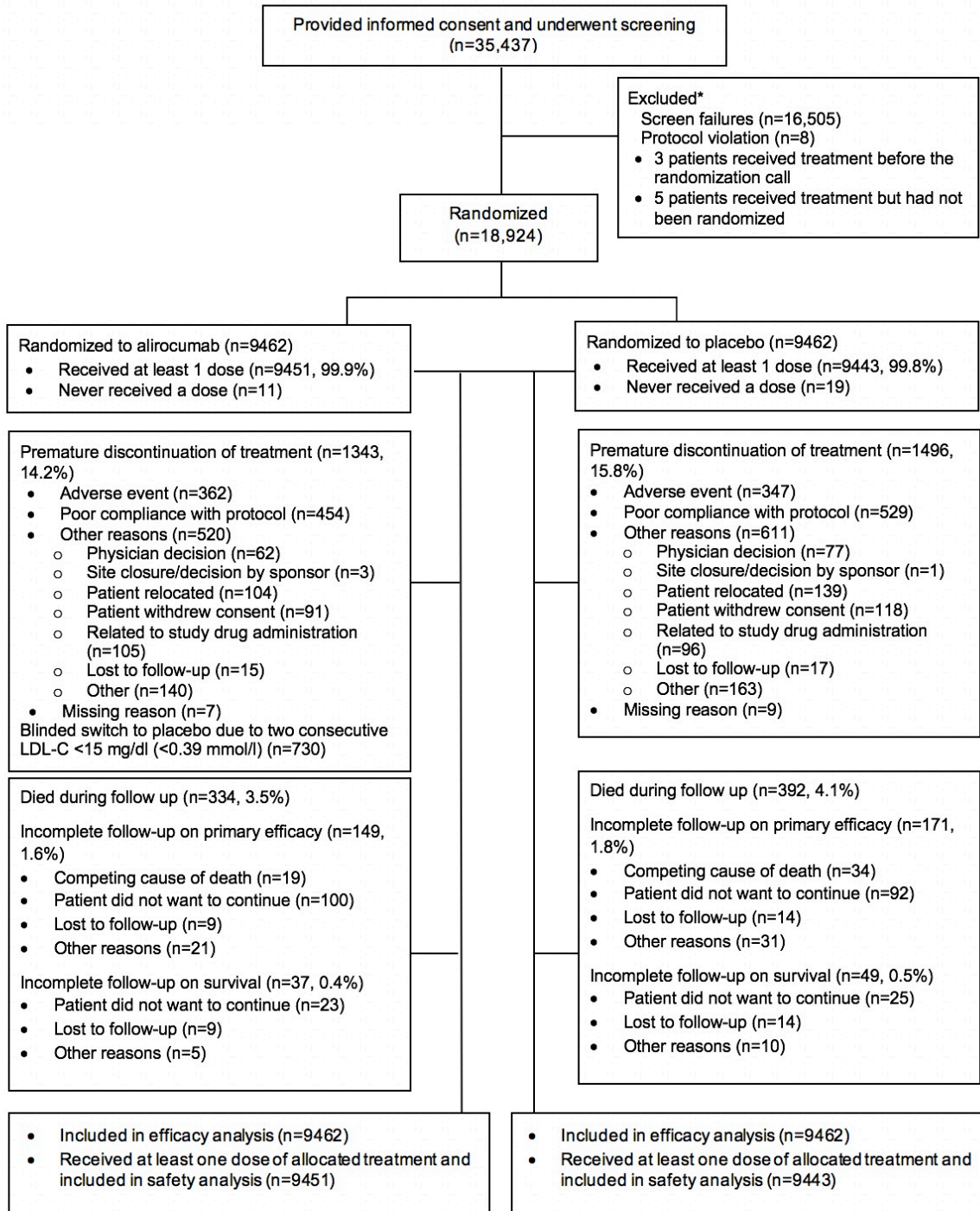


**Supplemental Table 6. Univariate General Joint Semiparametric Model Results: Total Nonfatal Myocardial Infarction, Stroke, or Unstable Angina, and Cardiovascular Deaths.**

	HR (95% CI)	P Value
Nonfatal myocardial infarction, stroke, or unstable angina (1034 events for alirocumab vs 1240 for placebo)		
Alirocumab treatment	0.82 (0.73 to 0.91)	0.0004
Cardiovascular death (240 events for alirocumab vs 271 for placebo)		
Alirocumab treatment	0.88 (0.73 to 1.05)	0.15
Association between nonfatal events: $\hat{\eta}$ (95% CI) = 0.77 (0.72 to 0.83)		<0.0001
Association between nonfatal and fatal events: $\hat{\theta}$ (95% CI) = 3.49 (3.03 to 3.95)		<0.0001

CI indicates confidence interval; HR, hazard ratio.

## Supplemental Figure. Consort Diagram.



\*The most common reasons for screen failures during the run-in period were related to lipid criteria (34.1% of patients) or withdrawal of patient consent (6.1% of patients).

### Supplemental References

1. Schwartz GG, Bessac L, Berdan LG, et al. Effect of alirocumab, a monoclonal antibody to PCSK9, on long-term cardiovascular outcomes following acute coronary syndromes: rationale and design of the ODYSSEY outcomes trial. *Am Heart J.* 2014;168:682-689.
2. Schwartz GG, Steg PG, Szarek M, et al. Alirocumab and Cardiovascular Outcomes after Acute Coronary Syndrome. *N Engl J Med.* 2018;379:2097-2107.