

# Neointimal Modification with Scoring-Balloon and Efficacy of Drug-Coated Balloon Therapy in Patients with Restenosis in Drug-Eluting Coronary Stents

*Robert A. Byrne, Sebastian Kufner, Michael Joner, Simon Schneider, Ralph Tölg, Janika Repp, Erion Xhepa, Tareq Ibrahim, Salvatore Cassese, Massimiliano Fusaro, Ilka Ott, Christof Burgdorf, Christian Hengstenberg, Heribert Schunkert, Bernhard Zrenner, Gert Richardt, Karl-Ludwig Laugwitz, Adnan Kastrati*

Deutsches Herzzentrum München & I. medizinische Klinik, Klinikum rechts der Isar, Technische Universität München, both Munich;  
Herzzentrum der Segeberger Kliniken Gruppe, Bad Segeberg;  
Krankenhaus Landshut-Achdorf, Medizinische Klinik I, Landshut;

all in GERMANY

# Disclosure Statement of Financial Interest

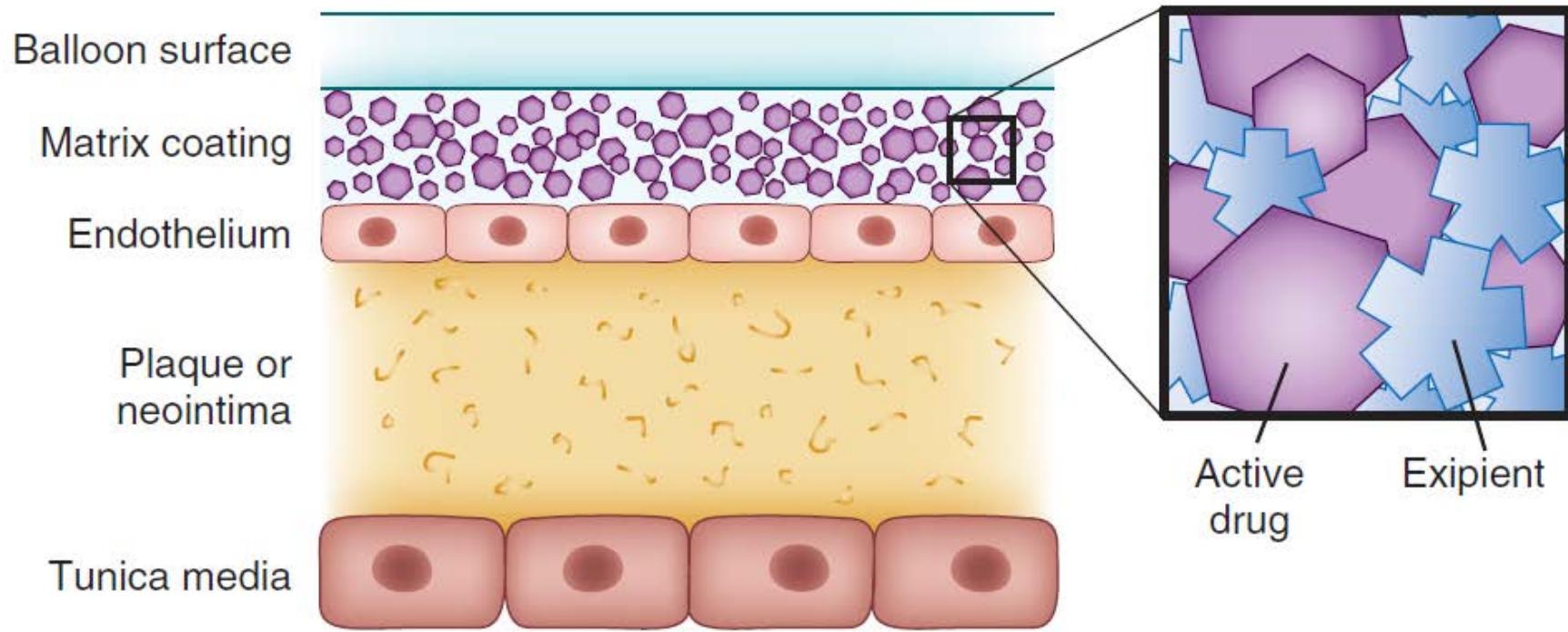
I, **Robert A. Byrne**, have received lecture fees from:

***B. Braun Melsungen AG***

***Biotronik***

***Boston Scientific***

# Drug-coated balloon therapy



*Drug-coated balloon angioplasty for the treatment of coronary drug-eluting stent restenosis has demonstrated encouraging results and has the advantage of avoiding additional stent layers in restenotic lesions*

# Study Organization

## Design

### DESIGN:

Prospective, randomized, active controlled, multicenter clinical trial

### INCLUSION CRITERIA:

1. Stenosis > 50% in “limus”-eluting DES
2. Symptoms/signs of ischemia

### EXCLUSION CRITERIA:

1. Lesion in left main stem
2. Acute STEMI
3. Cardiogenic shock

SPONSOR: Deutsches Herzzentrum

252 patients with DES-restenosis enrolled between June 2012 and December 2014 in 4 centers in Germany



Scoring balloon plus paclitaxel-coated balloon (N=125)

Standard balloon plus paclitaxel-coated balloon (N=127)

Angiographic follow-up at 6-8 months in 80.4% (N=203)\*

Clinical follow-up at 12 months

\*no significant differences across groups

# Baseline Characteristics

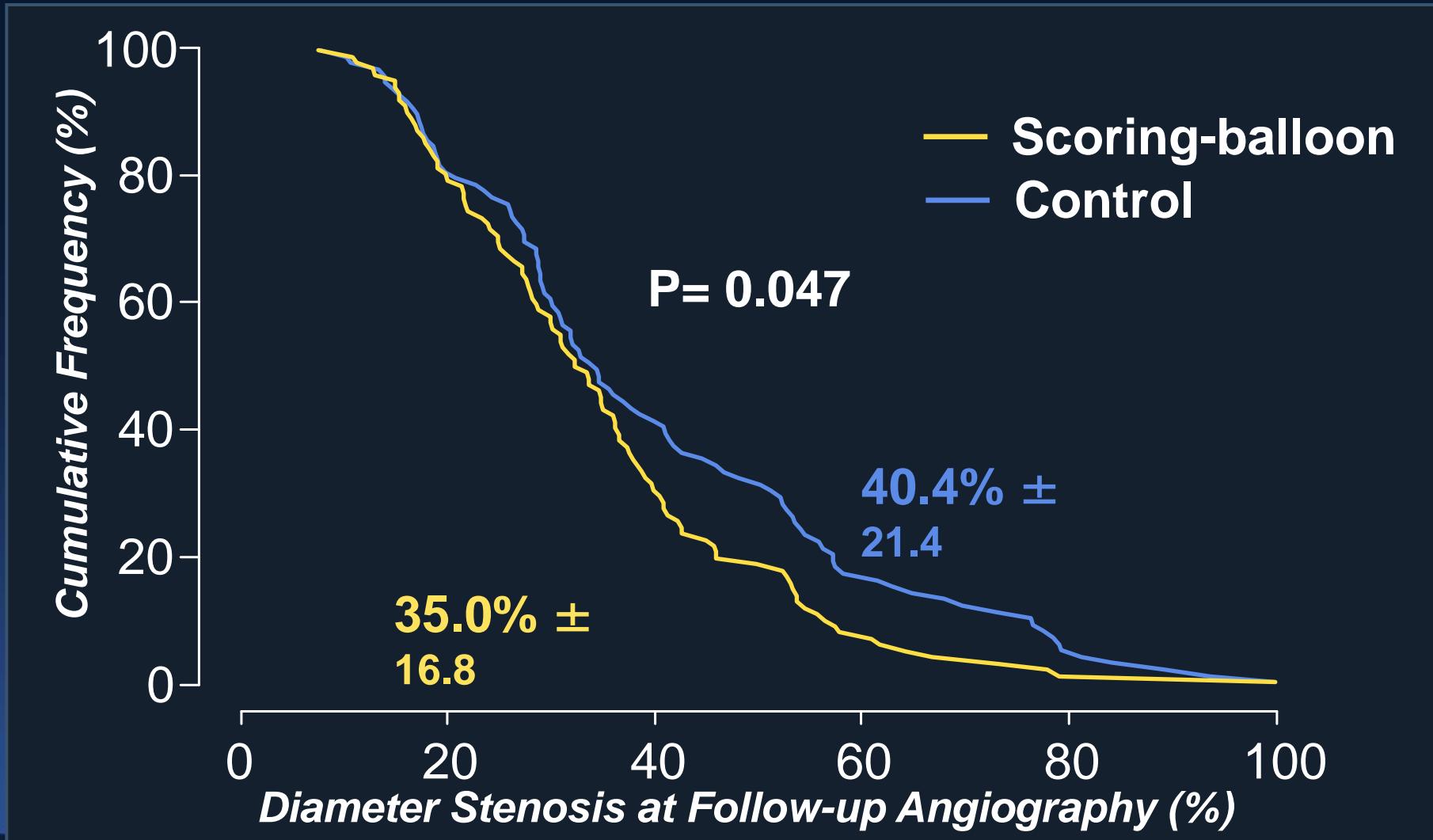
## *Lesions*

	Scoring balloon N = 125	Control N = 127
<b>Stent type, %</b>		
biolimus-eluting	11.2	12.6
everolimus-eluting	59.2	60.6
sirolimus-eluting	24.8	19.7
zotarolimus-eluting	4.8	6.3

*No significant differences across groups*

# Primary Endpoint

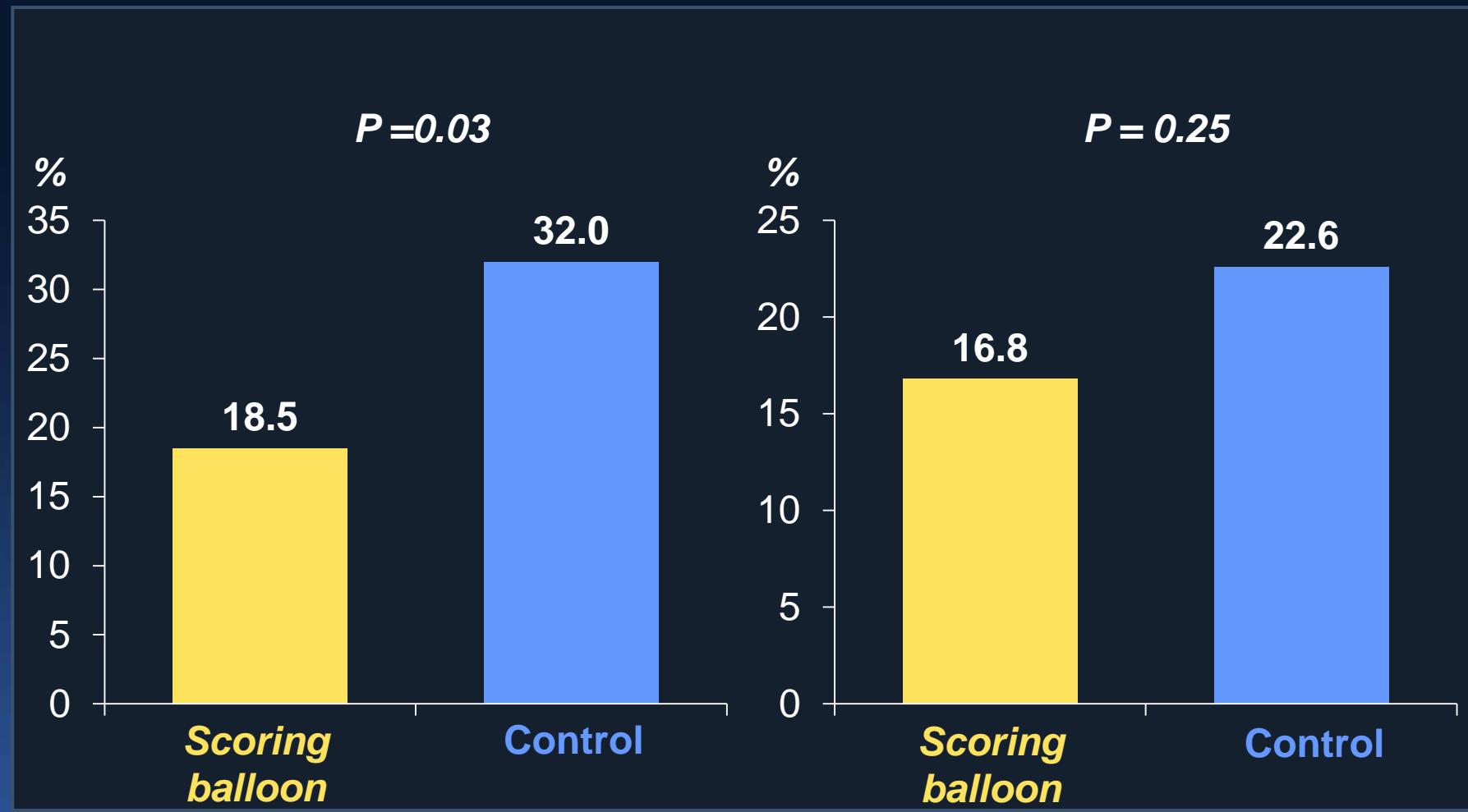
## *Diameter Stenosis at Follow-up Angiography*



# Secondary Endpoint

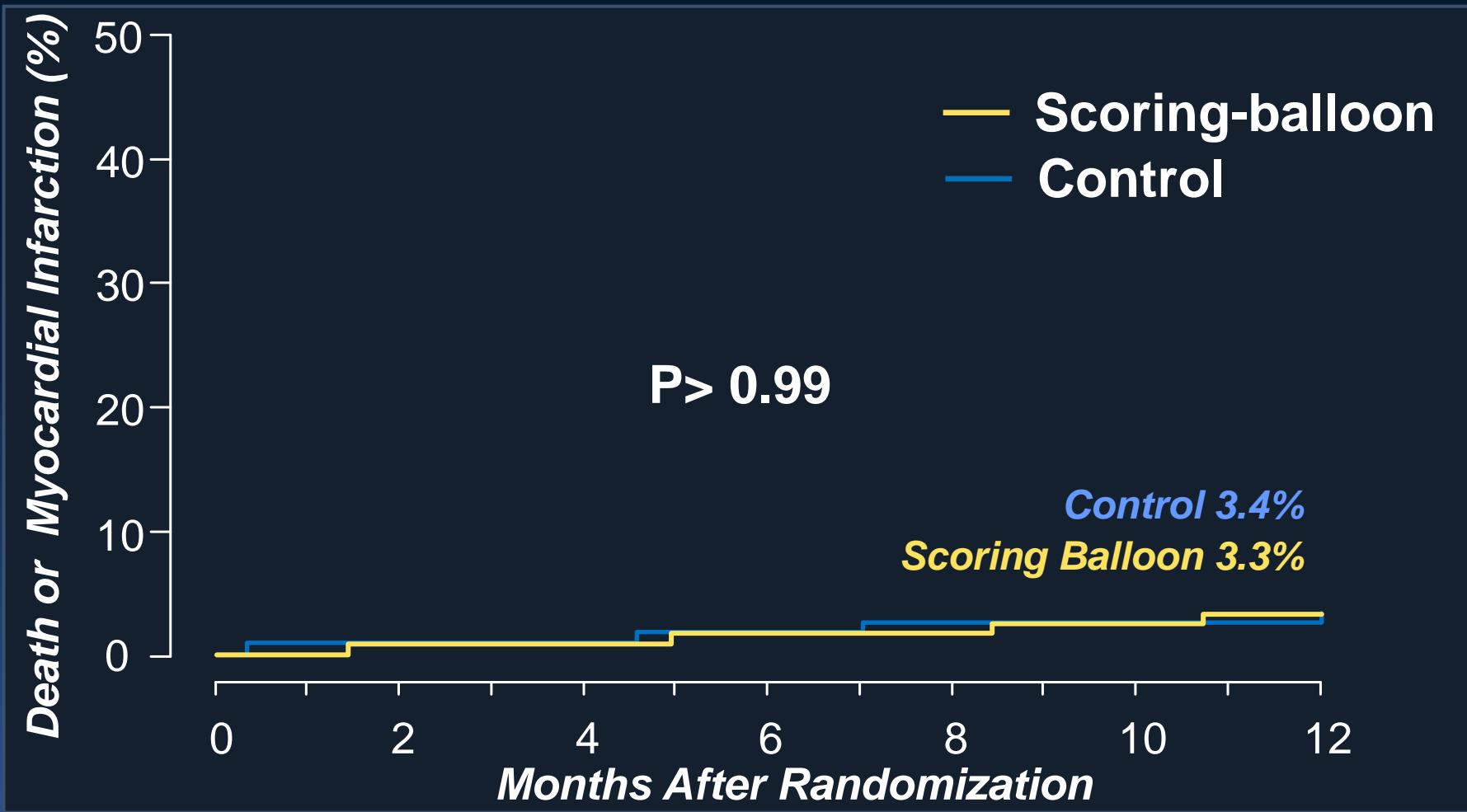
## *Binary Restenosis*

## *Target Lesion Revascularization*



# Secondary Endpoint

## *Death/Myocardial Infarction*



# Thank You



*Intracoronary Stenting and Angiographic Results: Optimizing Treatment of Drug Eluting Stent In-Stent Restenosis 4*

**ISAR-DESIRE 4**