

# PATOGENESIS INFLAMASI & ATEROSKLEROSIS



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# ATEROSKLEROSIS



- MEKANISME PENYEBAB
  - 1. REAKSI INFLAMASI
  - 2. DISFUNGSI ENDOTEL
  - 3. KELAINAN KOAGULASI



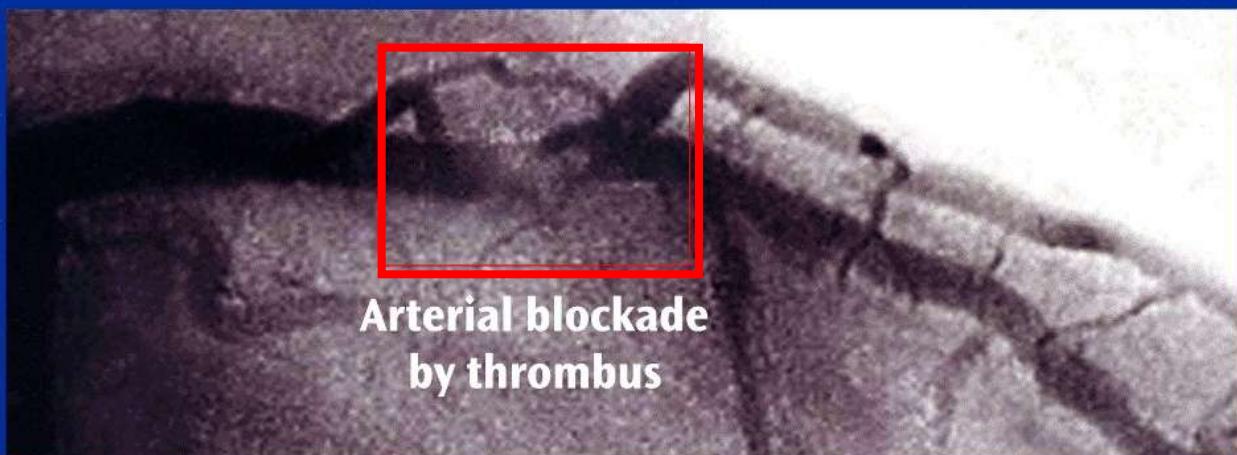
## ***Small plaques – underastimated risk in CHD***

CHD-patient with small plaques: no intervention



**3 months later:**

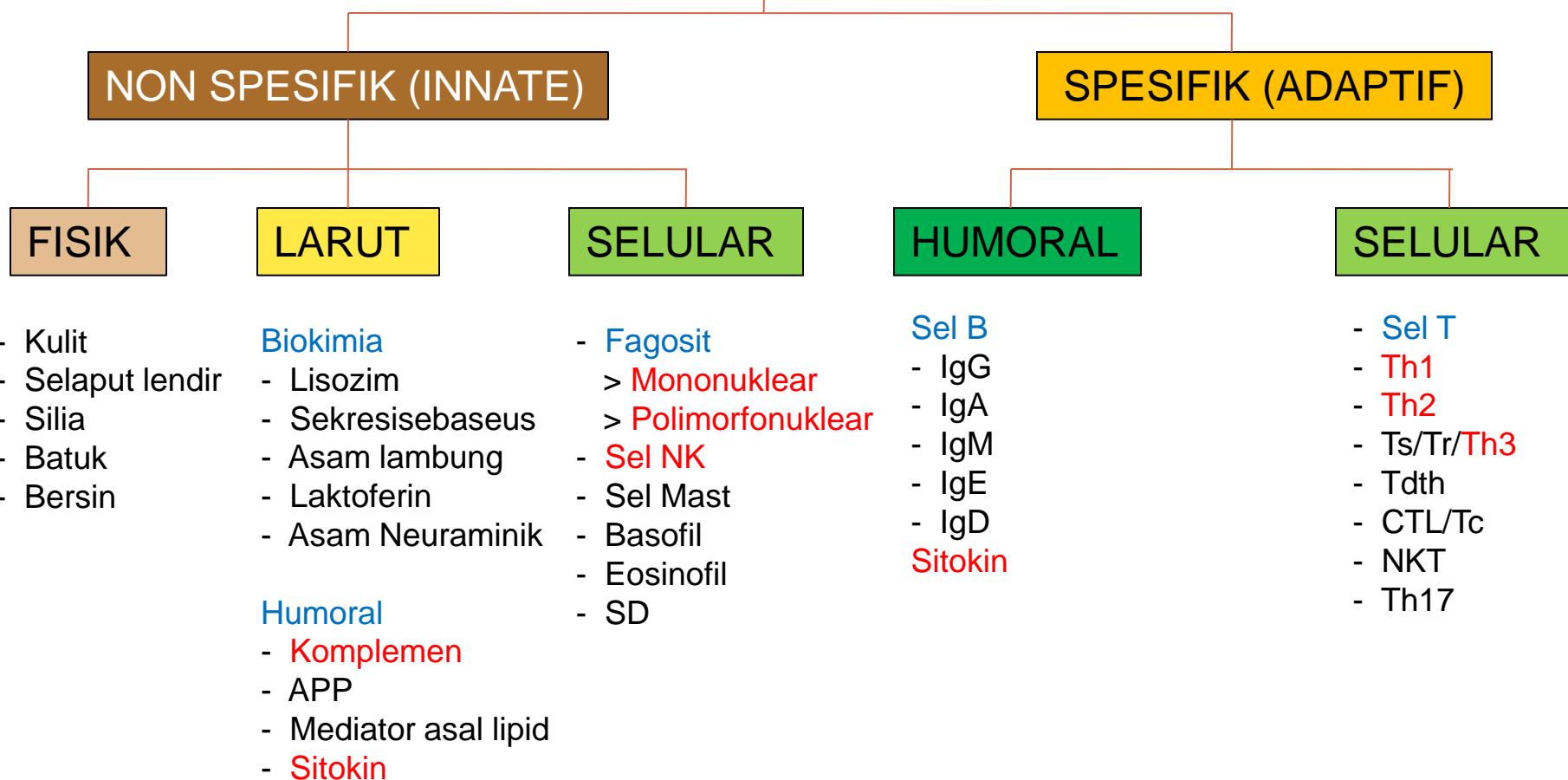
Acute MI caused by plaque rupture with thrombus formation







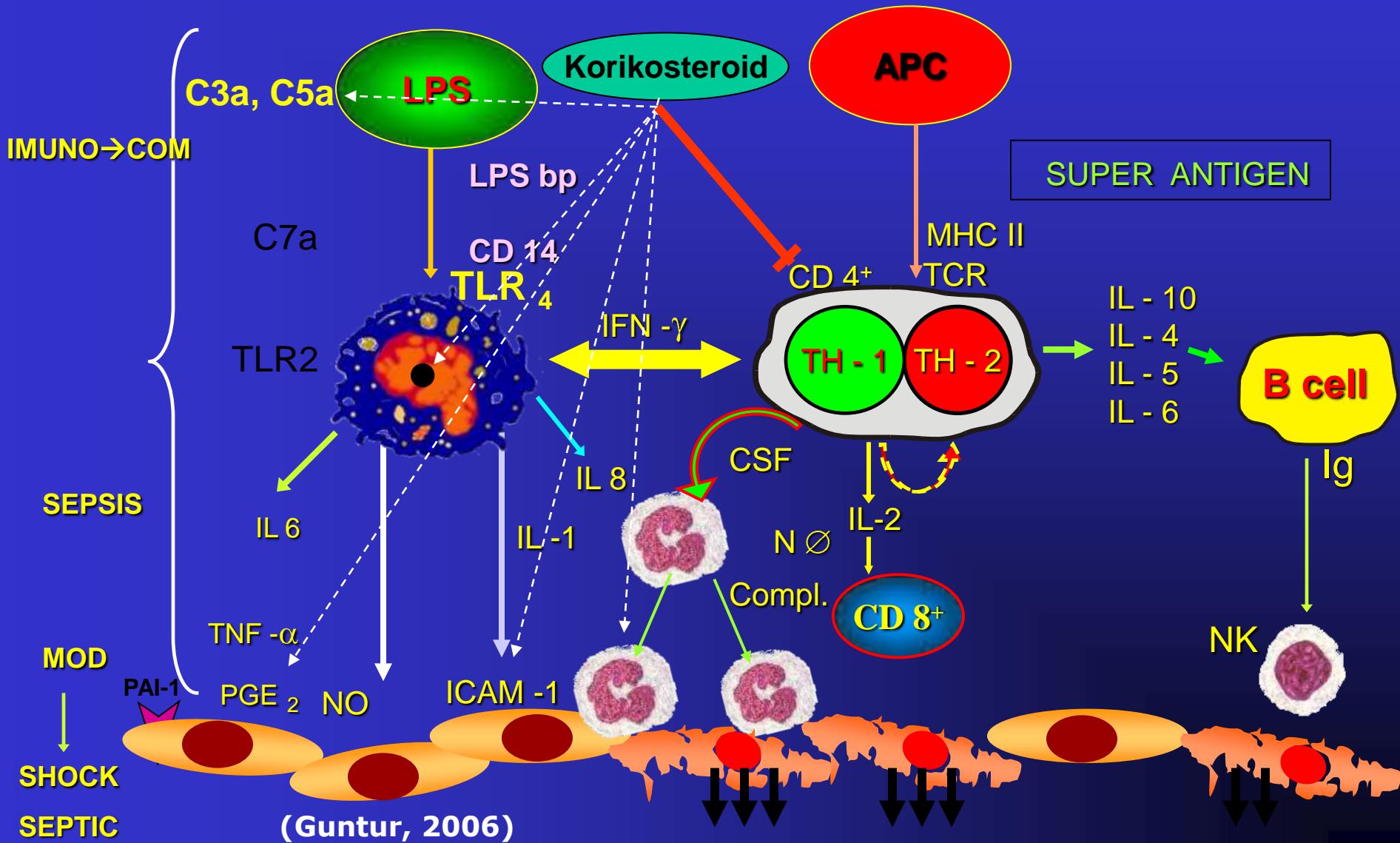
# SISTEM IMUN



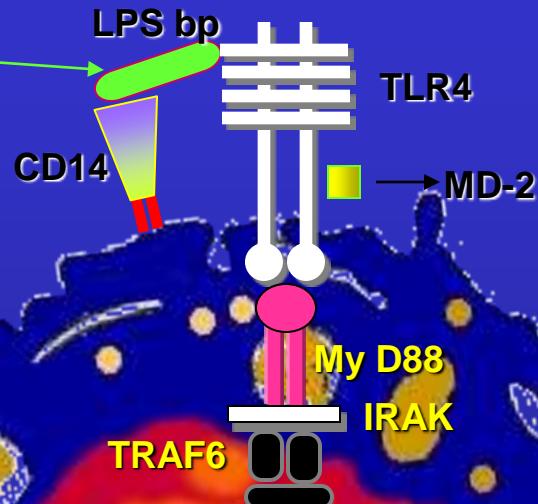
Gambaran umum sistem imun

Baratawidjaja, 2009; Imunologi Dasar

# Imunopatogenesis



**ENDOTOKSIN**



- Insulin Treatment
- Metformin
- Low dos Kortikosteroid
- Oestrogen
- Statin
- ACE Inhibitor
- AG II Blocker
- Anti ROS
- NO
- Bradikinin

MΦ

IL-6

IL-12

TNF- $\alpha$

IL-8

TGF $\beta$ -1

IL-1

**CYTOKINES**

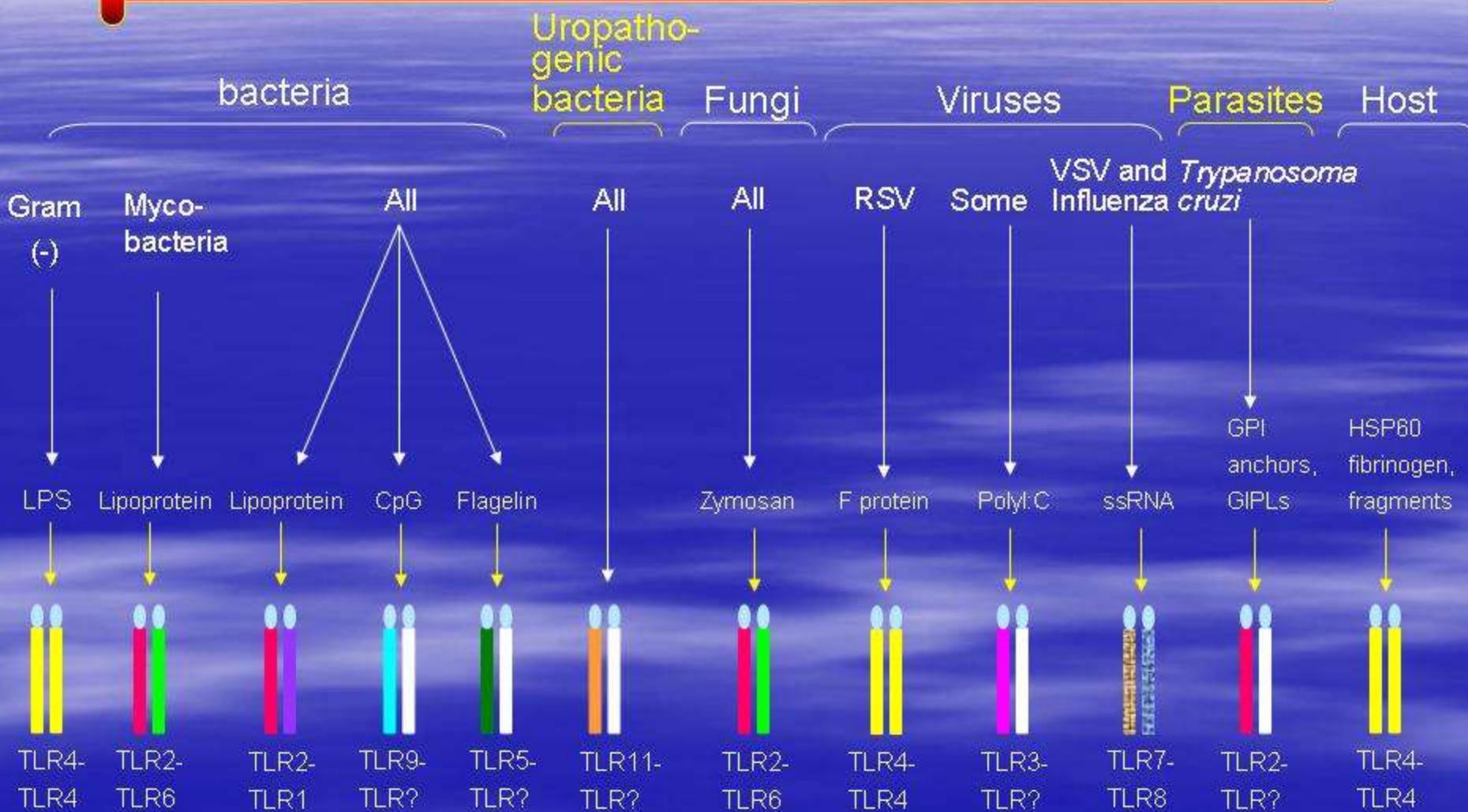
Guntur, 2008; Sepsis Forum

# Toll Like Reseptor



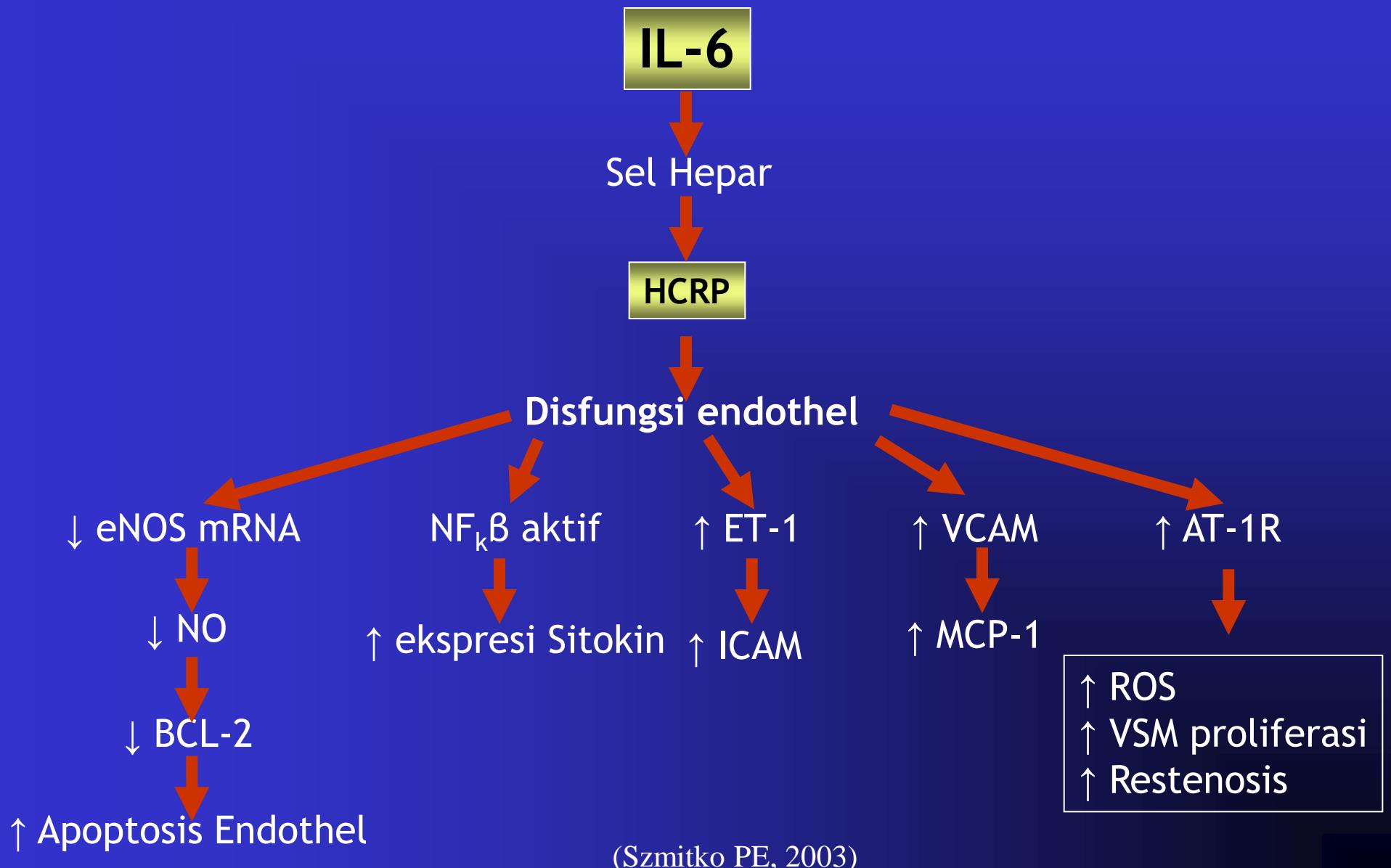
Figure 2-13 Immunobiology, 6/e. (© Garland Science 2005)

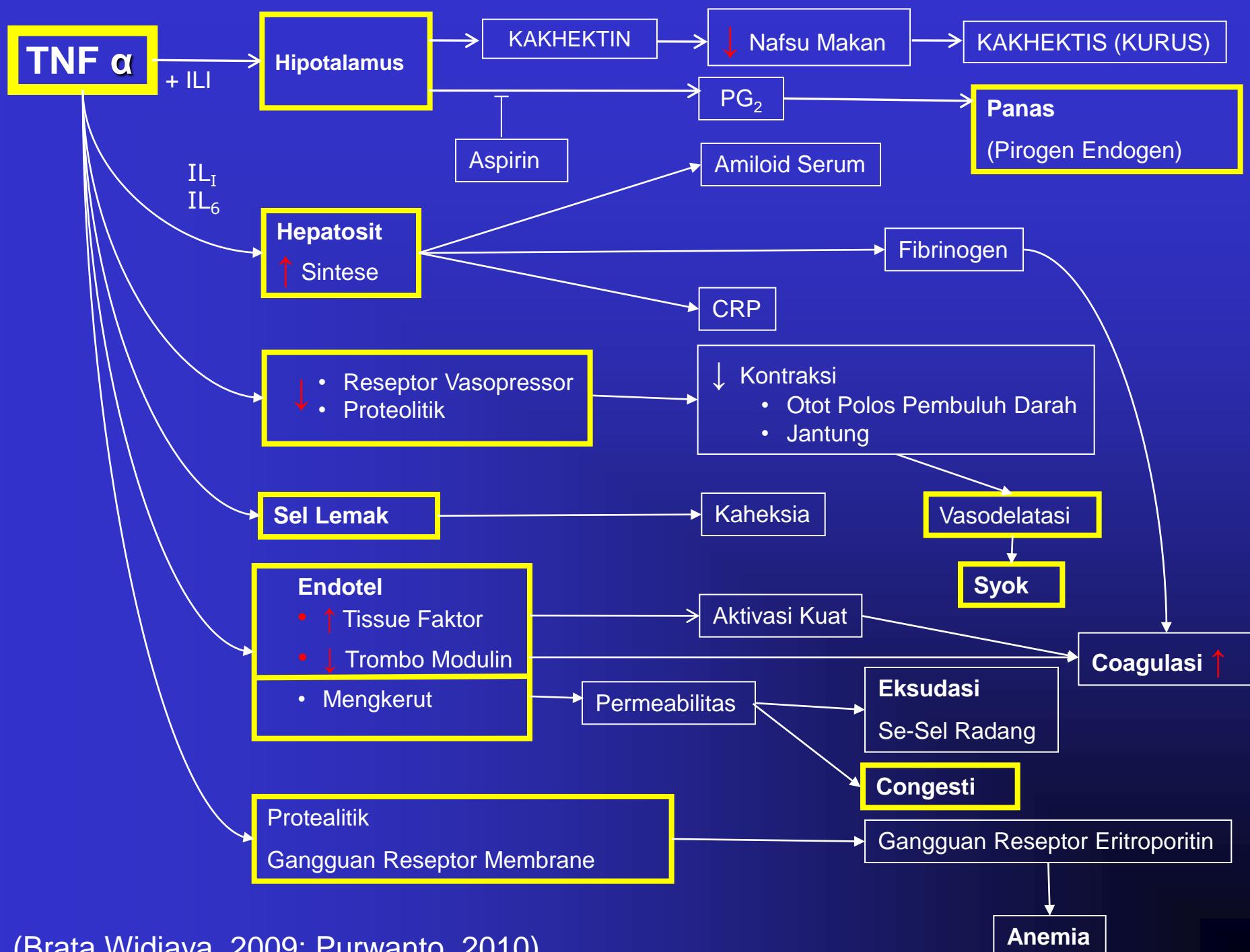
# Toll-like receptors recognize a range of pathogen-derived products

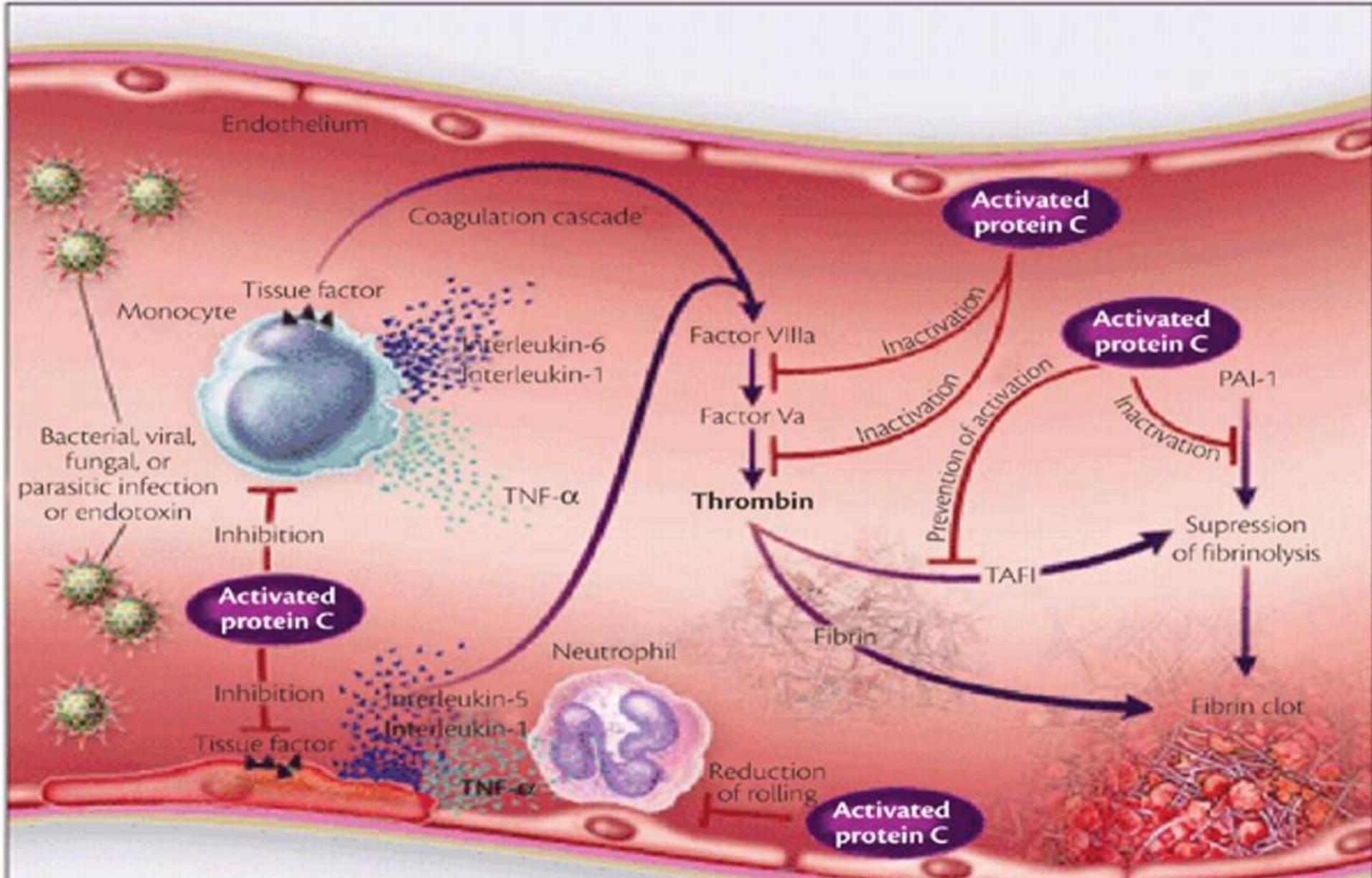


(adapted from: Liew F.Y. et al., 2005)

# Kemampuan Memprediksi HCRP Terhadap Morbiditas dan Mortalitas Kejadian Kardiovaskuler





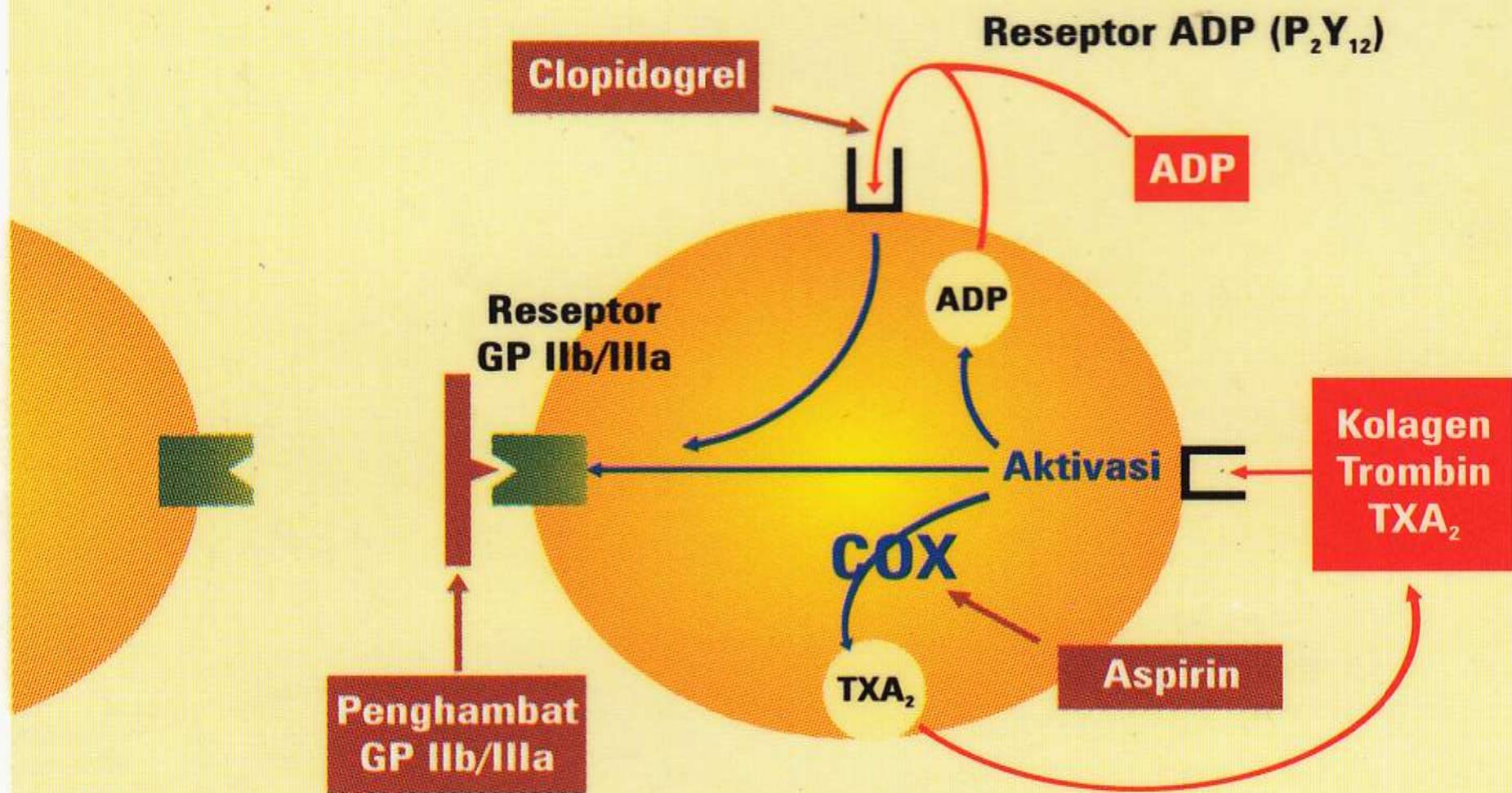


Inflammatory  
Response  
to Infection

Thrombotic  
Response  
to Infection

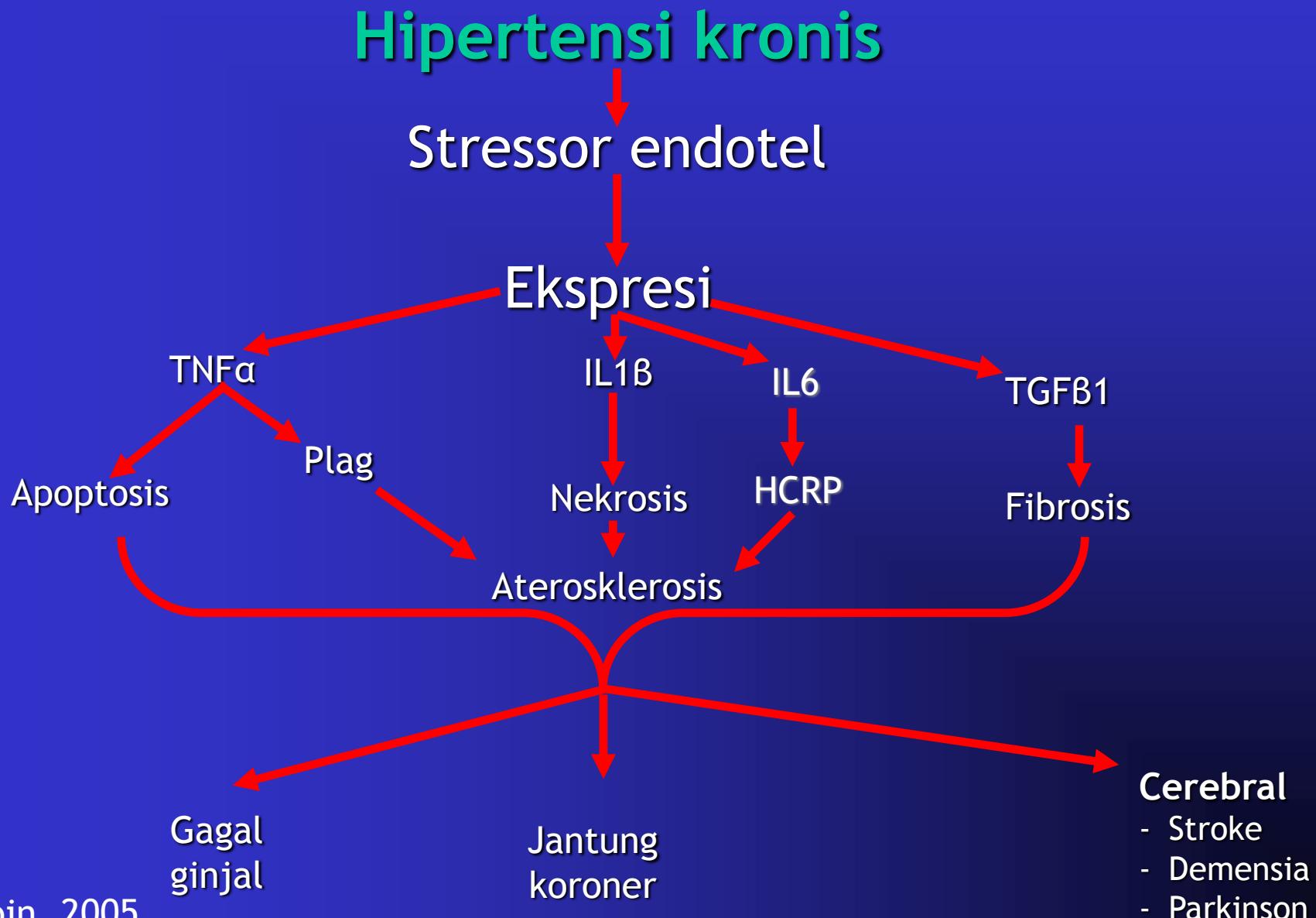
Fibrinolytic  
Response  
to Infection

# Mekanisme kerja Clopidogrel

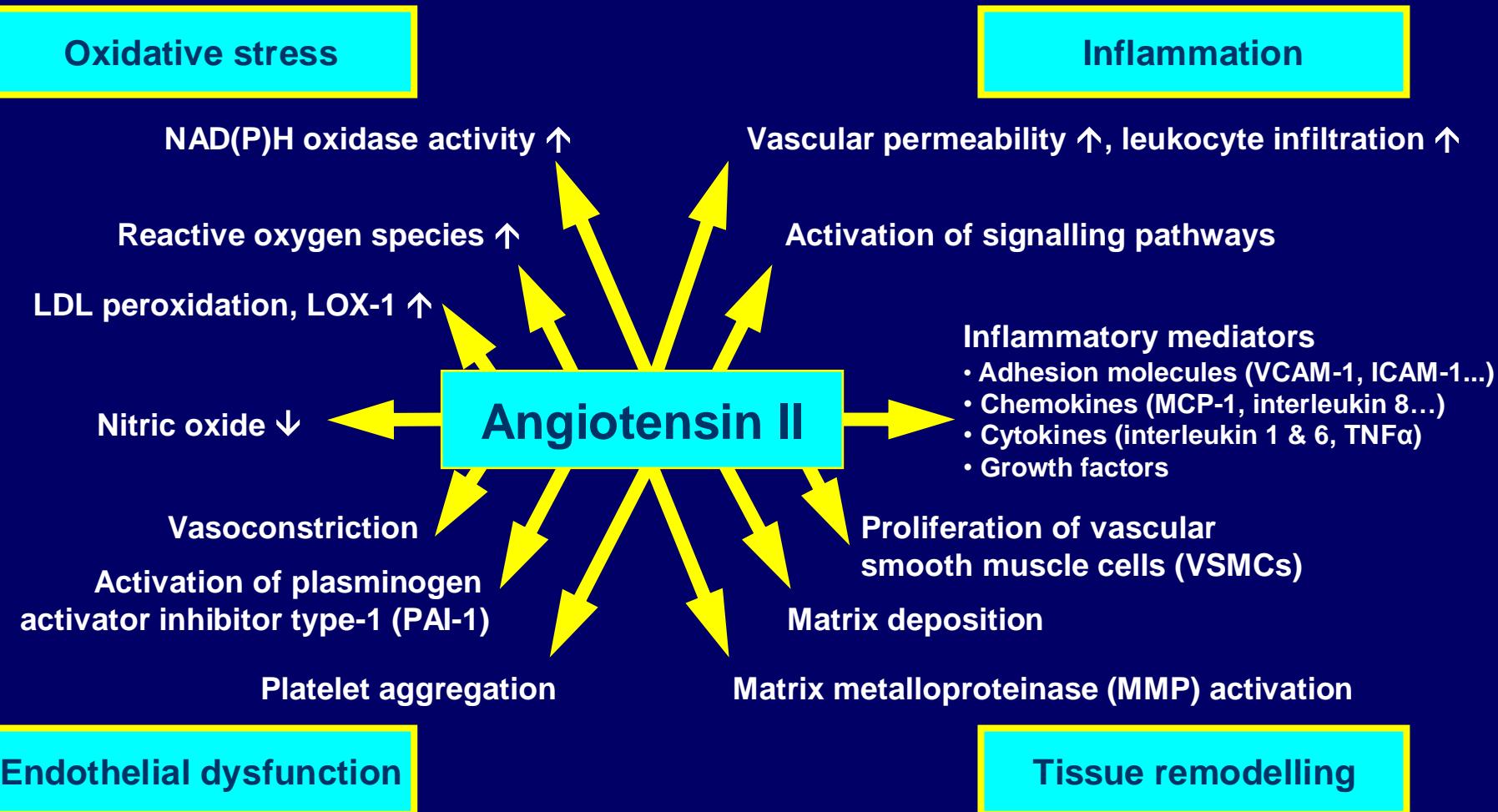


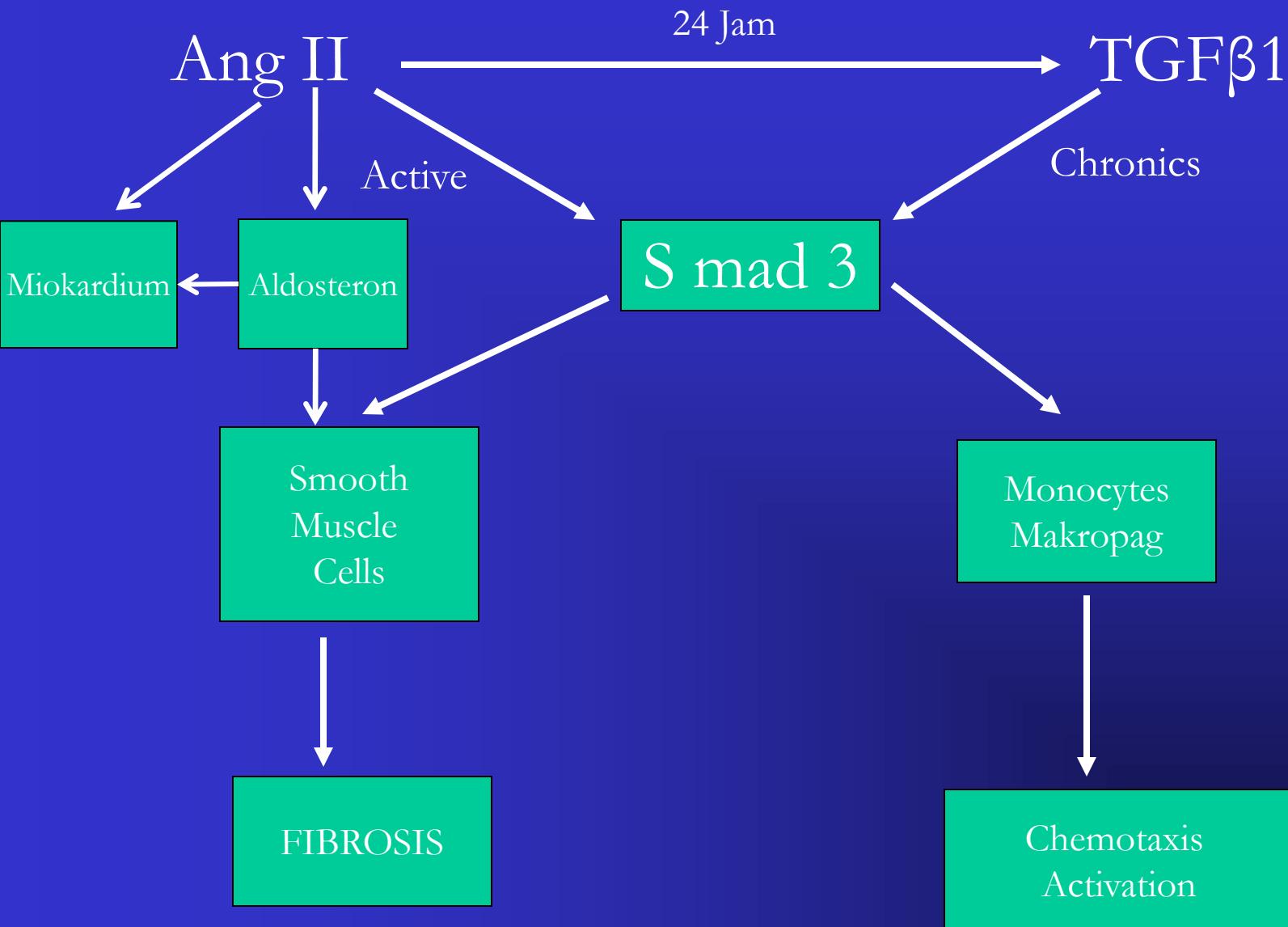
**ADP** = Adenosin difosfat ; **GP IIb/IIIa** = Glikoprotein IIa/IIb ;  
**TXA<sub>2</sub>** = Tromboksan A<sub>2</sub>; **COX** = Siklooksigenase

# Patogenesis Komplikasi Hipertensi



# Angiotensin II plays a central role in atherosclerosis

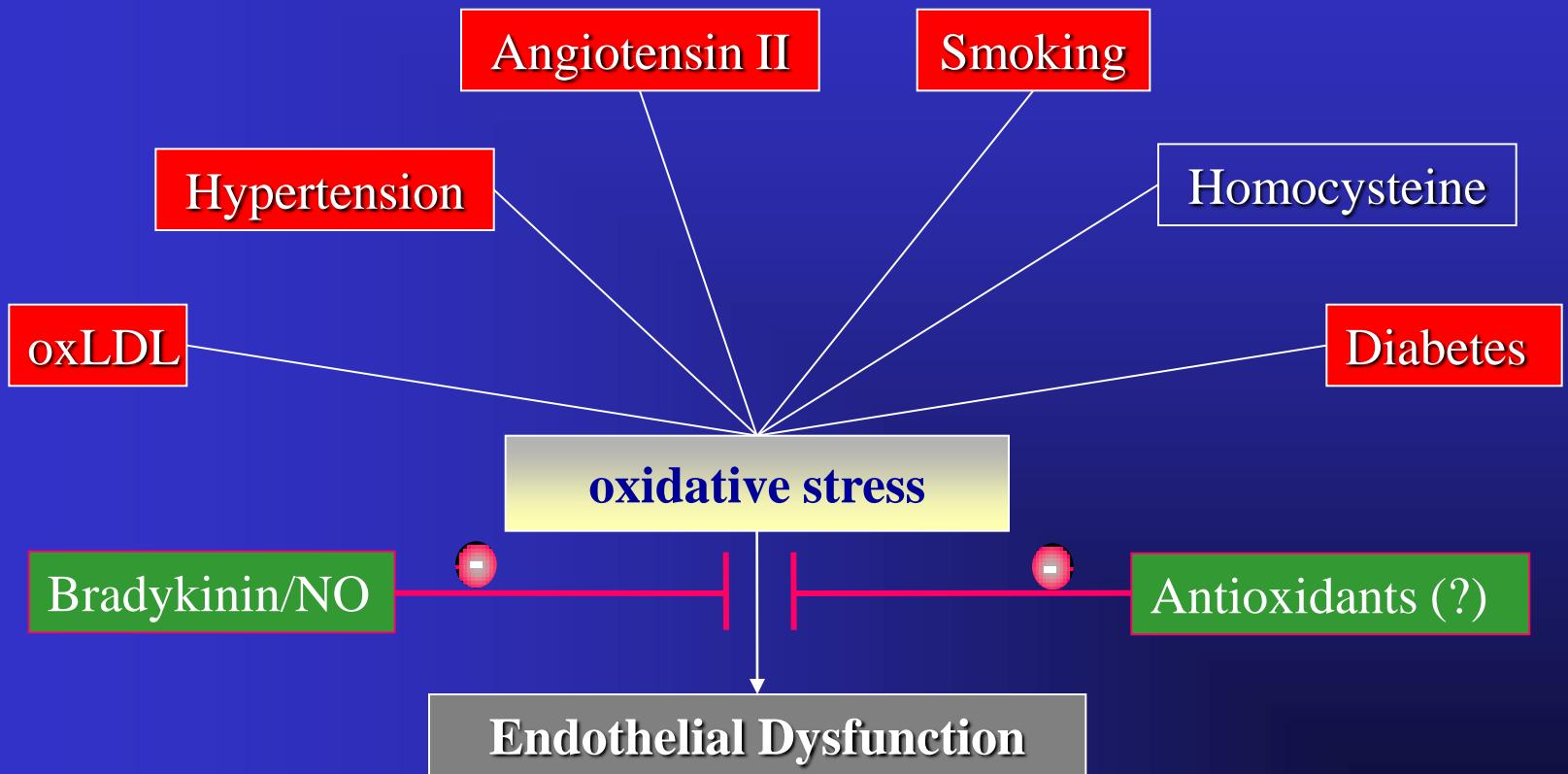


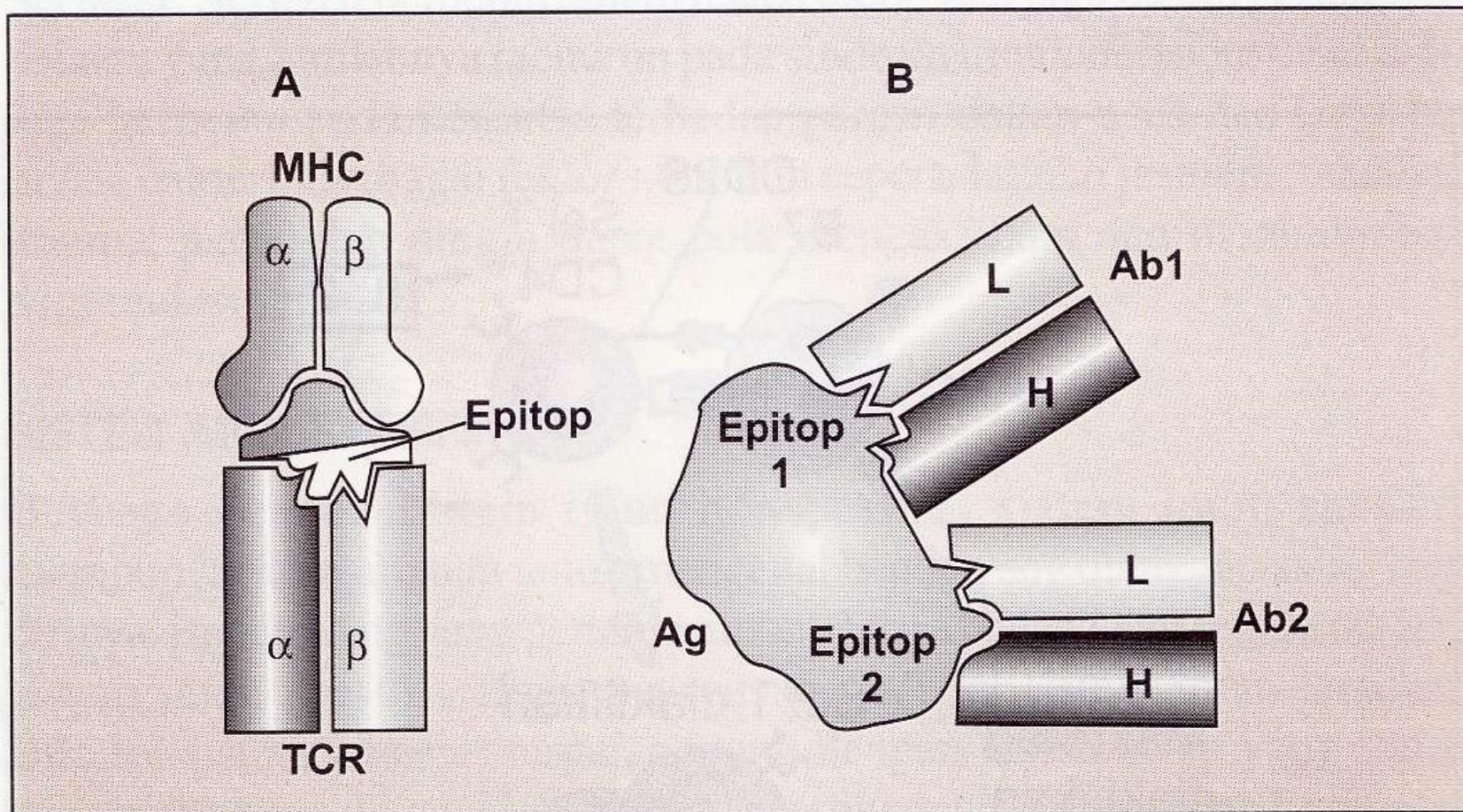


Mekanisme Fibrosis

Robin, 2007

# CV Risk Factors And Endothelial Dysfunction





**Gambar 9.** Epitop

(Karnen GB, Iris R;2006)