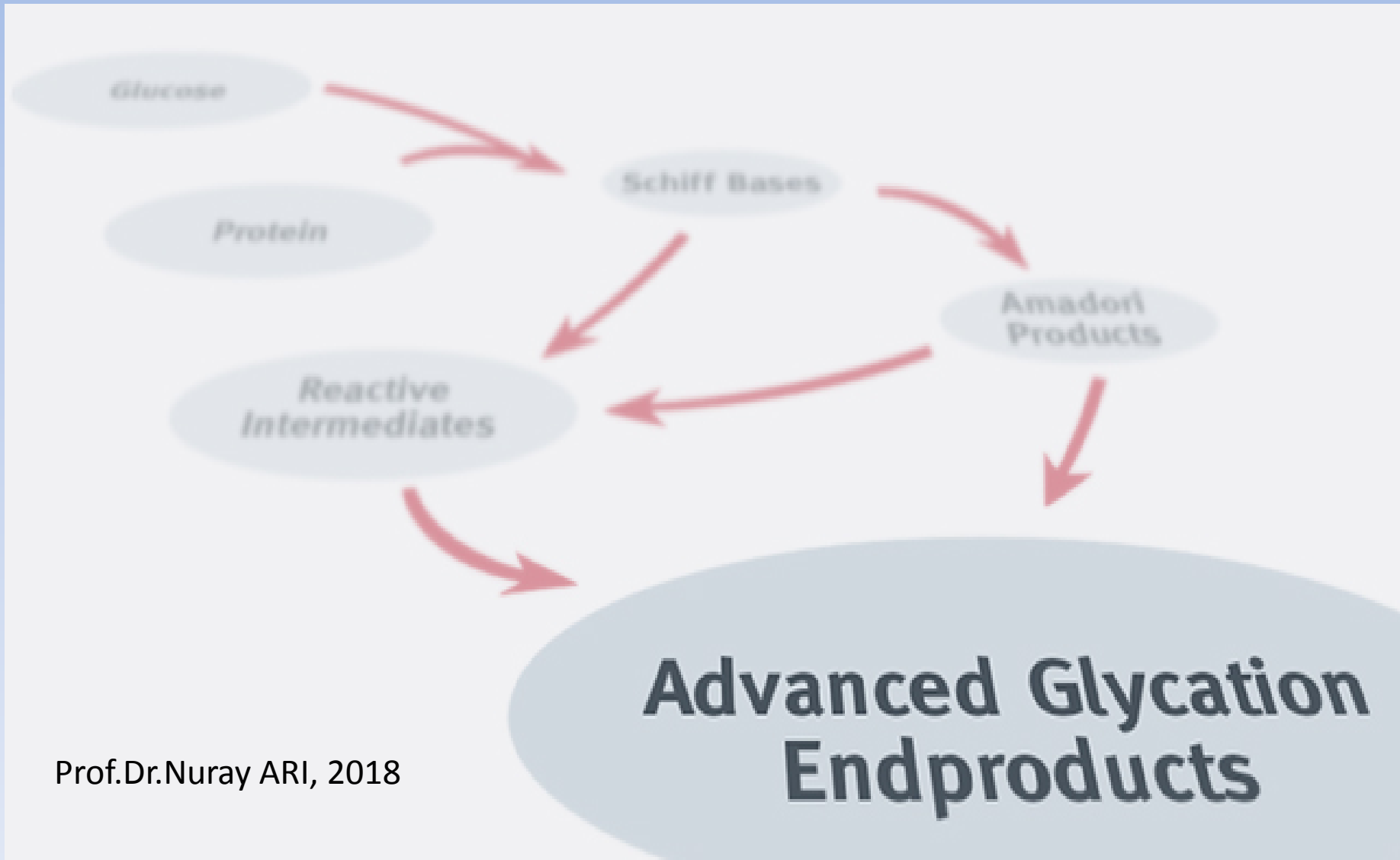
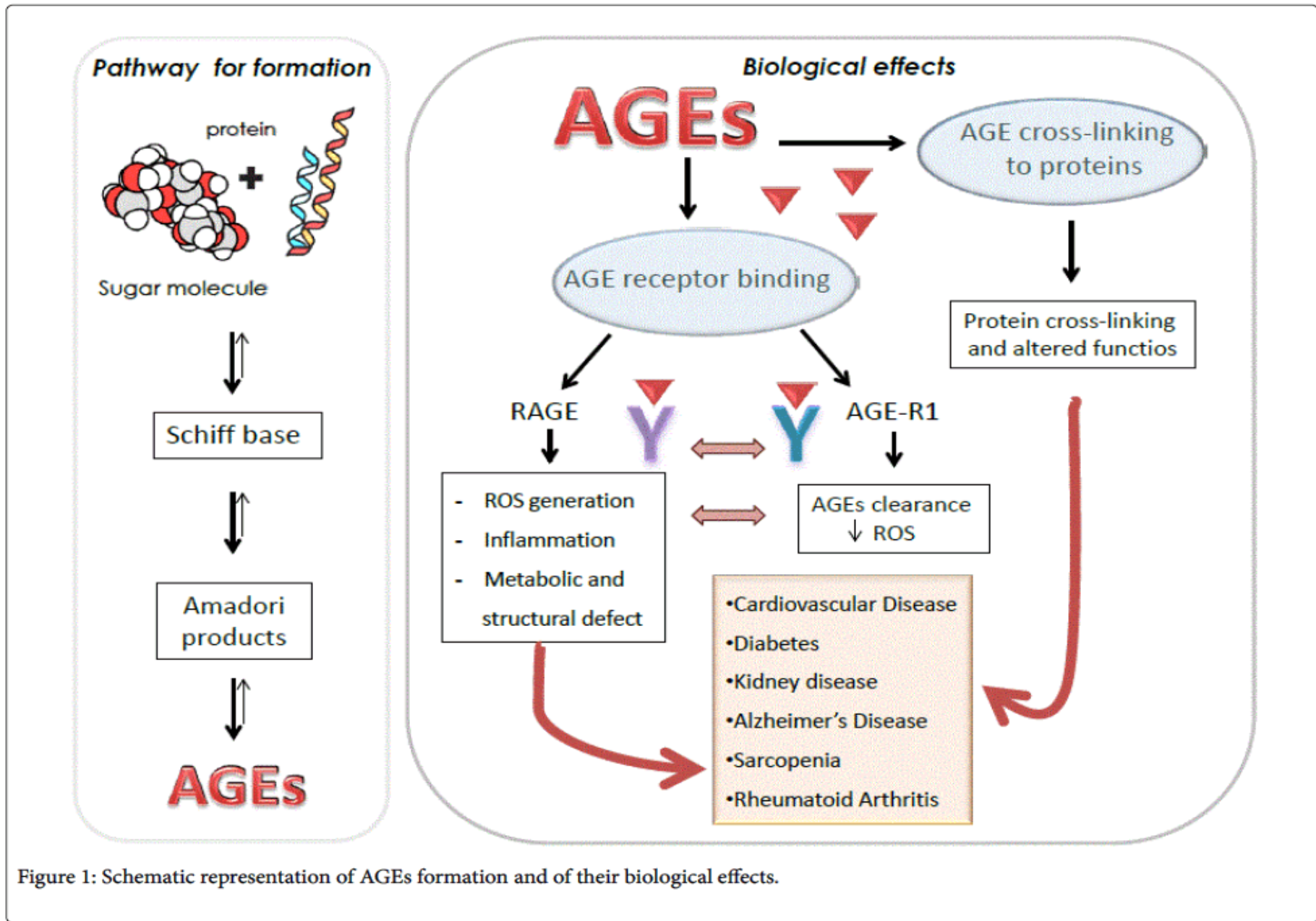
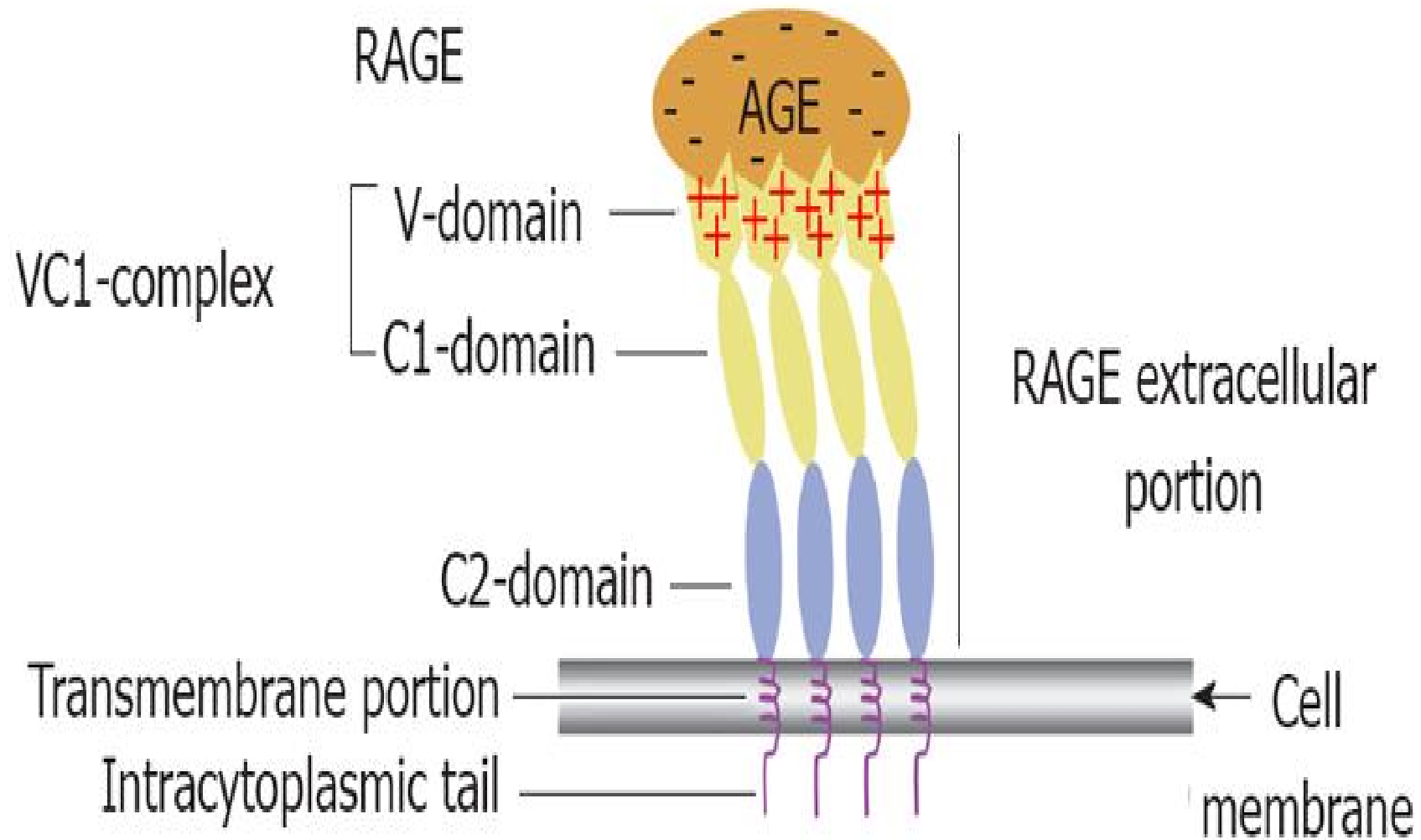


Cont..



Prof.Dr.Nuray ARI, 2018

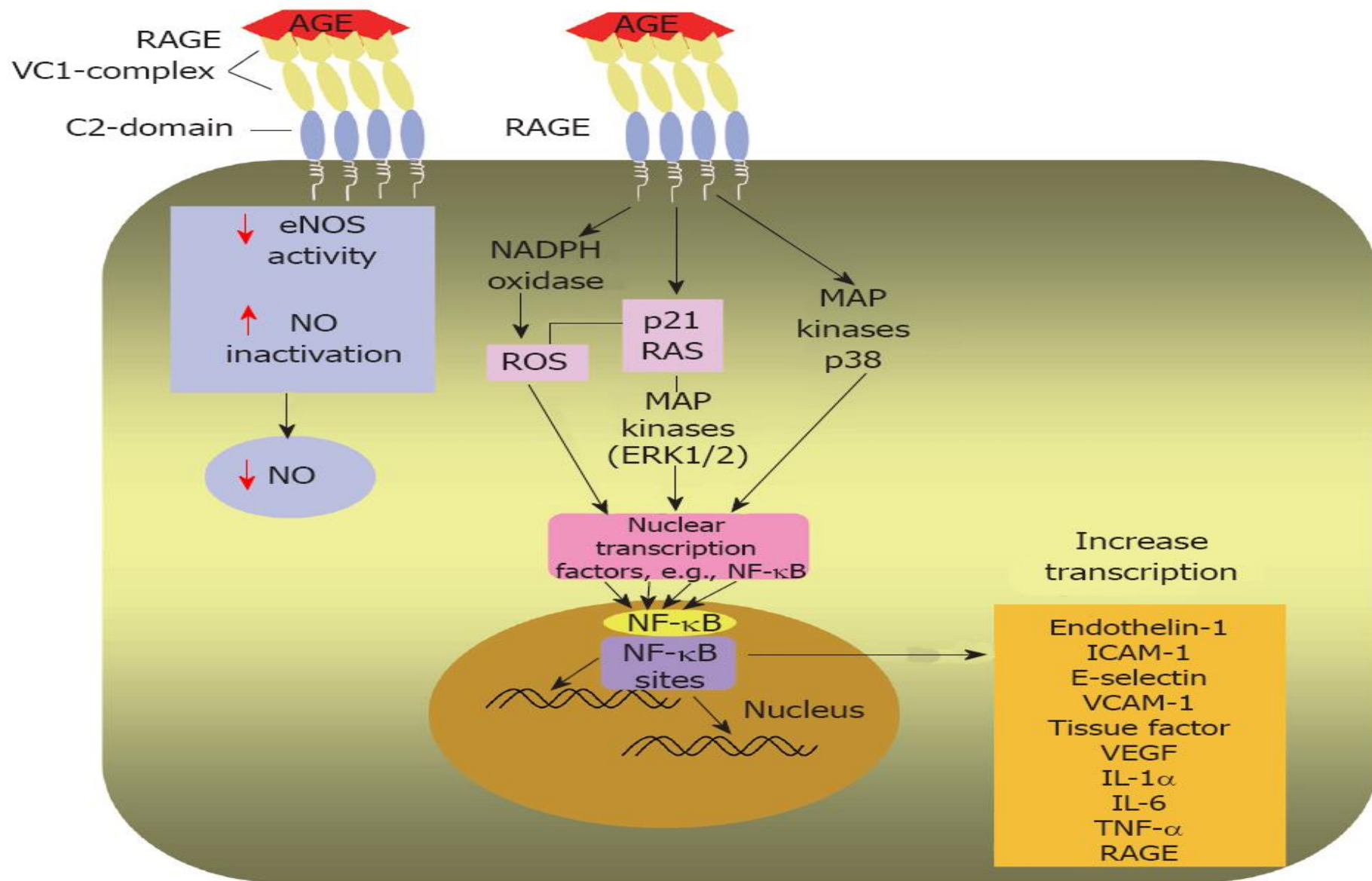




Receptor for advanced glycation end products

RAGE Ligands

- AGEs
- Amiloids
- HMG-1 (high mobility group-1 amphoterin)
- S100/Kalgranulins

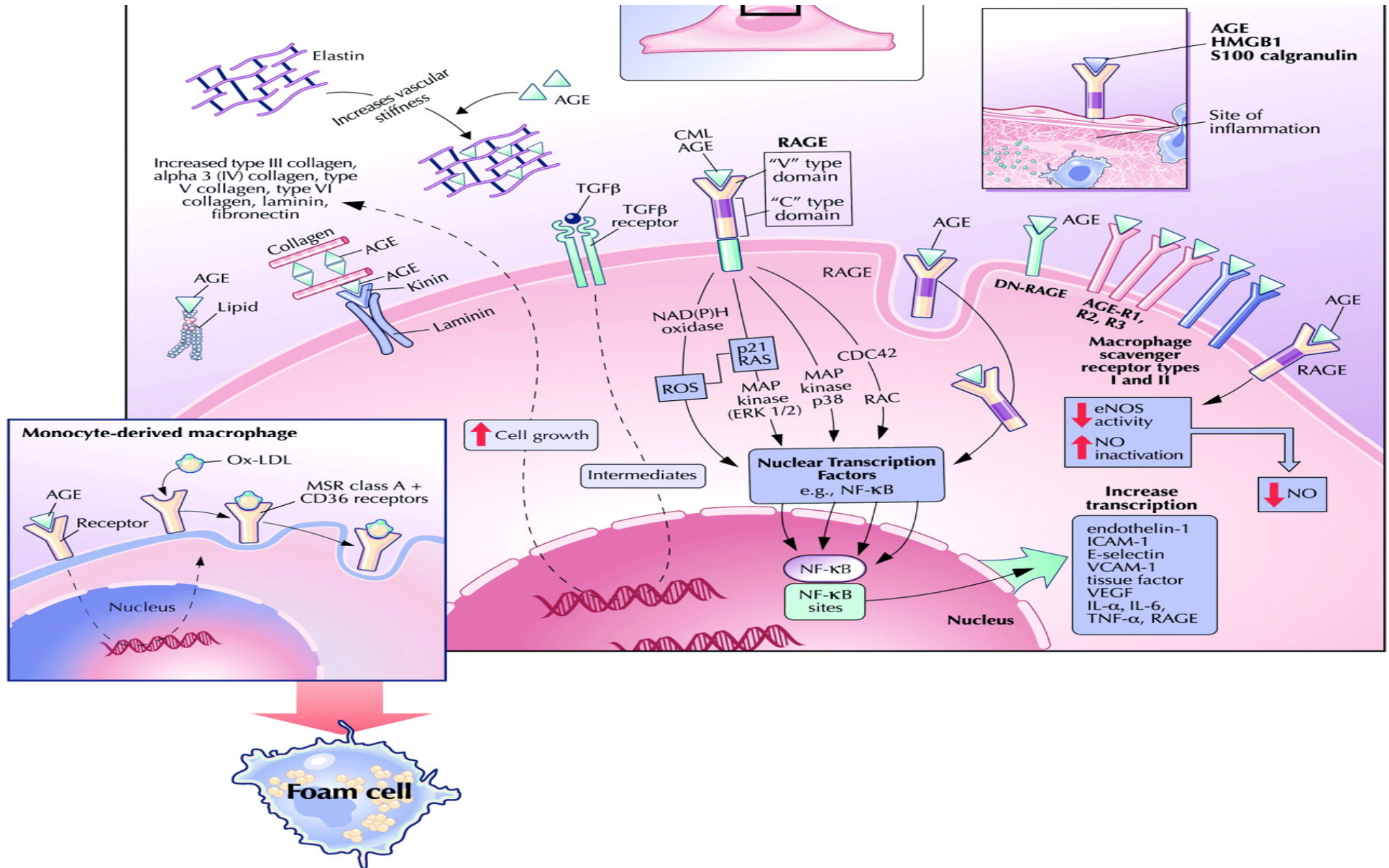


Intracellular effects of AGEs after AGE/RAGE binding : endothelial cell

World J Cardiol. 26, 2012; 4(4): 90-102, Hegab et al.

RAGE Localisation

- Endothelium
- Smooth muscle
- Mononuclear cells
- Cardiac myocytes
- Podocytes
- Lung: pleura
- Lung: Bronche
- Peripheral and cortical neurons



The extracellular and intracellular effects of AGEs on the endothelial cell surface

Circulation. 2006;114:597-605, Goldin et al.

- *“AGEs can be controlled through simple methods of cooking, such as keeping the heat down and the water content up in food and by avoiding pre-packaged and fast foods when possible.”*
- Method of food preparation is critical here. Heating foods over 446 degrees F (230 C) seems to be the most problematic.
- For example, the same 90 gr chicken breast can vary from 1000 to 9000 AGEs:
- Frying, grilling, roasting, or broiling: 4000 to 9000 AGEs
- Boiling, steaming, or stewing: 1000 AGEs

Diet:What can we do about them?

“AGEs can be controlled through simple methods of cooking, such as keeping the heat down and the water content up in food and by avoiding pre-packaged and fast foods when possible.”

- **Cook food at a lower temperature**
- **Avoid processed foods, which have more AGEs -home prepared versions (such as French fries) have fewer AGEs compared to their processed counterparts**
- **Use liquid in cooking**
- **Use acids such as lemon juice or vinegar in marinades and cooking liquid - these will also help decrease AGE formation**
- **To immediately start consuming 50% less AGEs, poach, stew, or steam meals. This 50% reduction can decrease plasma levels of AGEs by 30% within a month.**

AGE-reader



AGE READER

Know their risk.

