

# **SNS COLLEGE OF PHARMACY AND HEALTH SCIENCES**

*Affiliated To The Tamil Nadu Dr. MGR Medical University, Chennai*

*Approved by Pharmacy Council of India, New Delhi.*

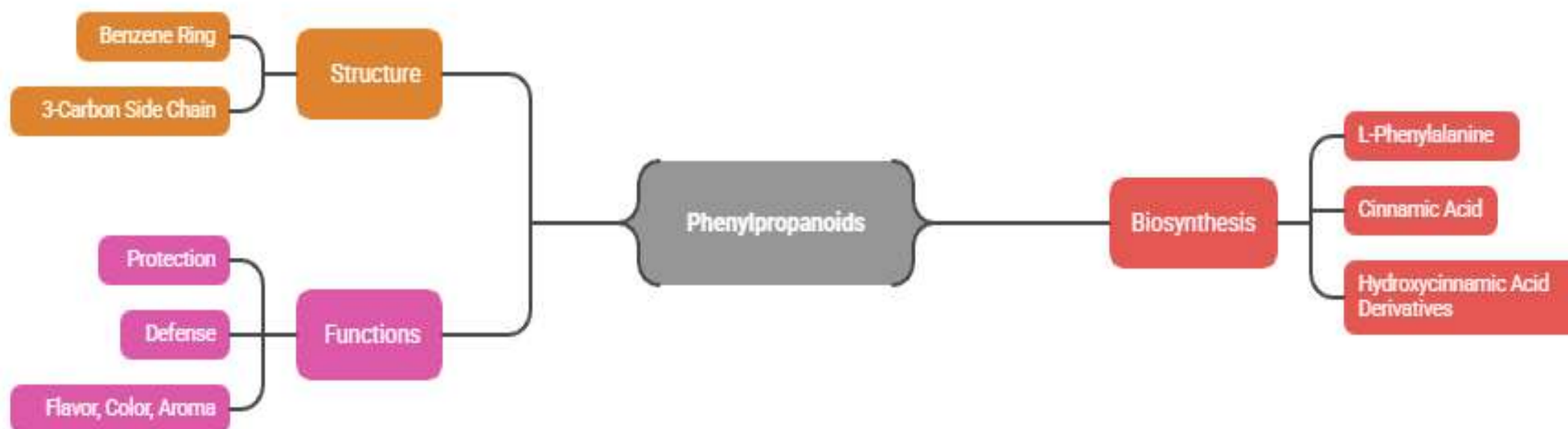
**Coimbatore -641035**

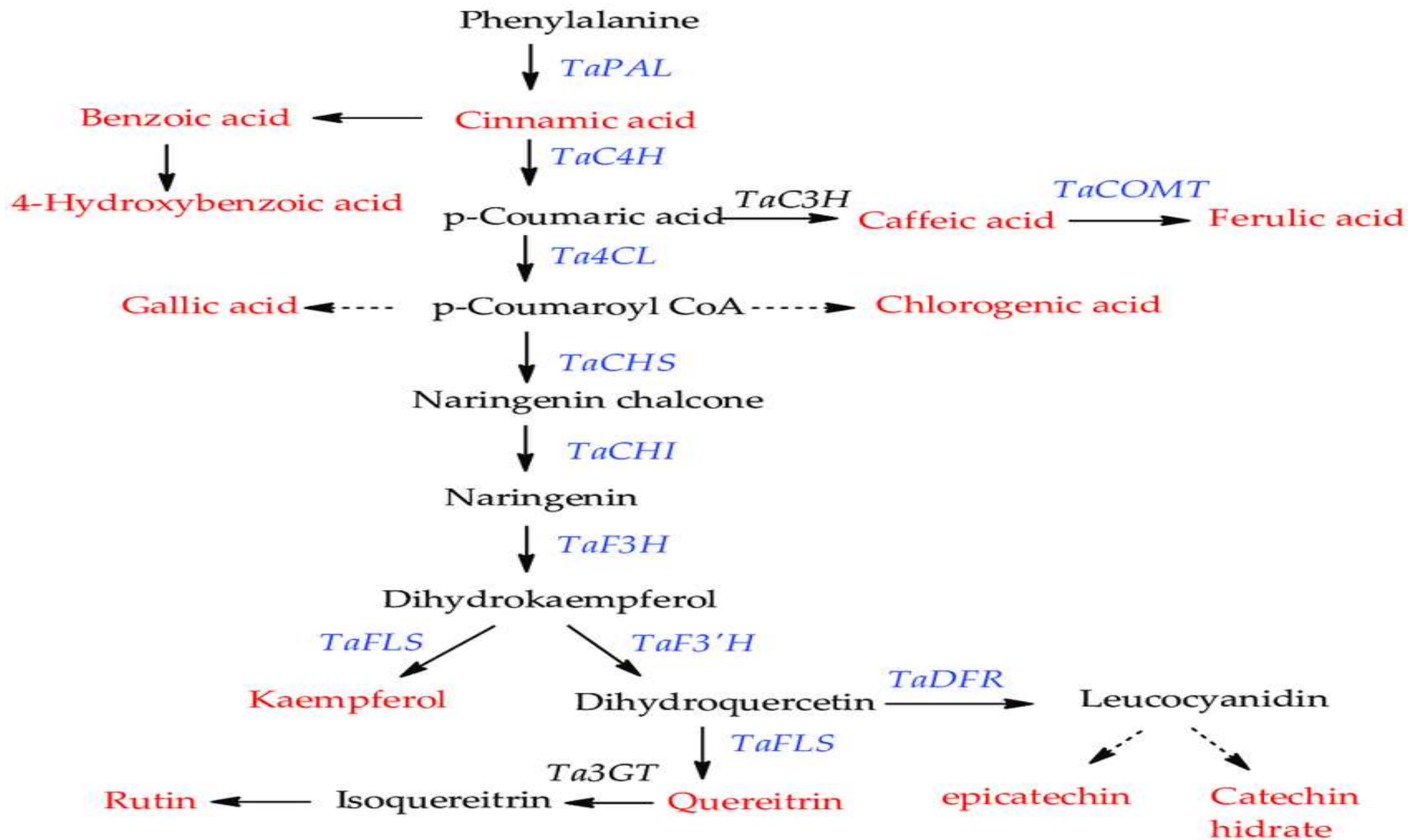
**COURSE NAME : PHARMACOGNOSY AND PHYTOCHEMISTRY II (BP504T)**

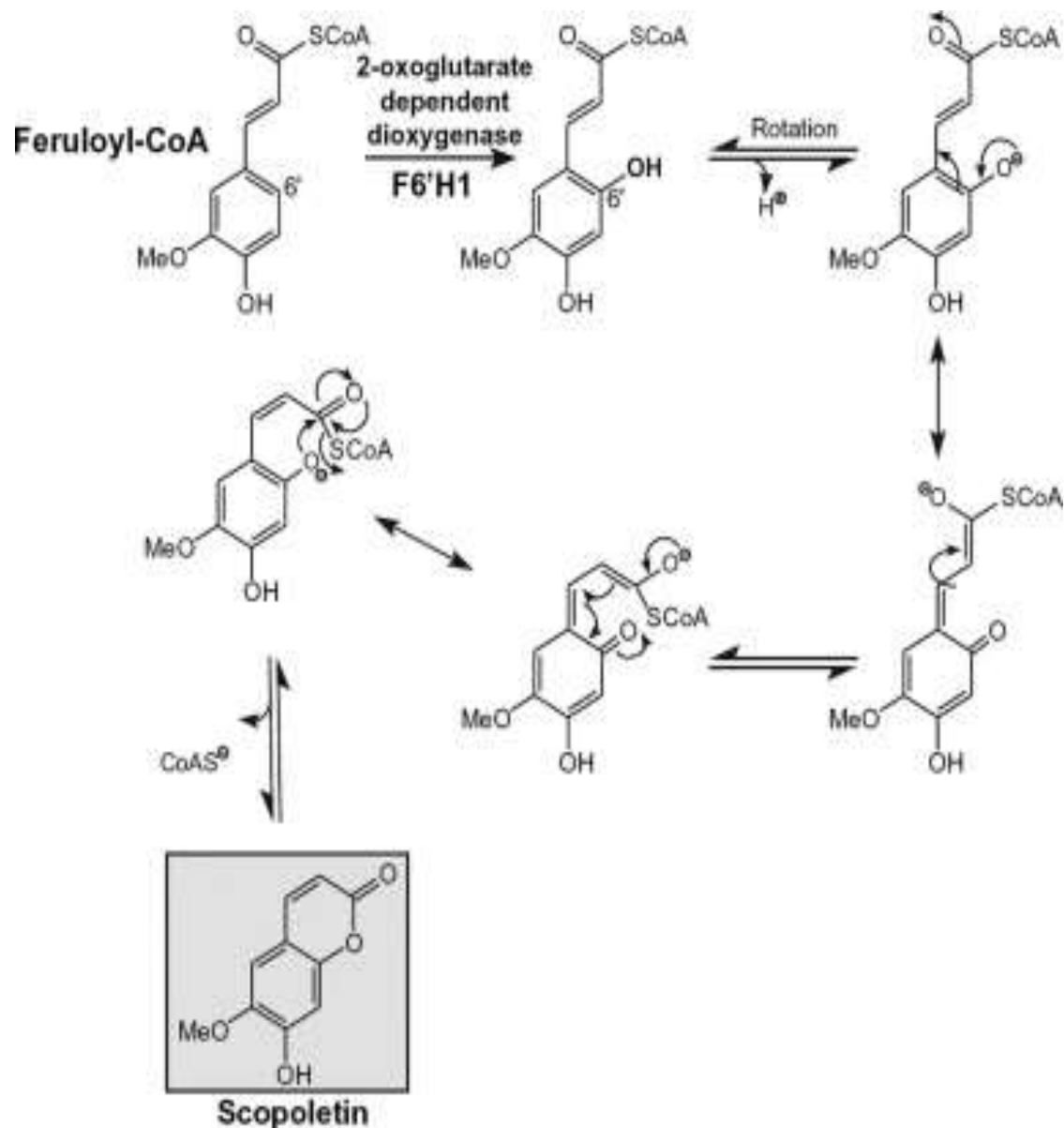
**V SEM / IIIYEAR**

**TOPIC 1 : PHENYLPROPANOIDS & FLAVONOIDS**

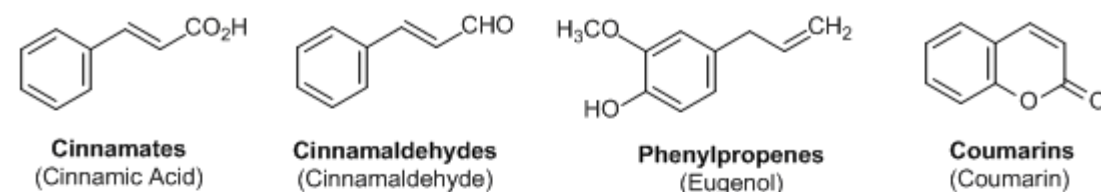
## Phenylpropanoids: Structure, Biosynthesis, and Functions



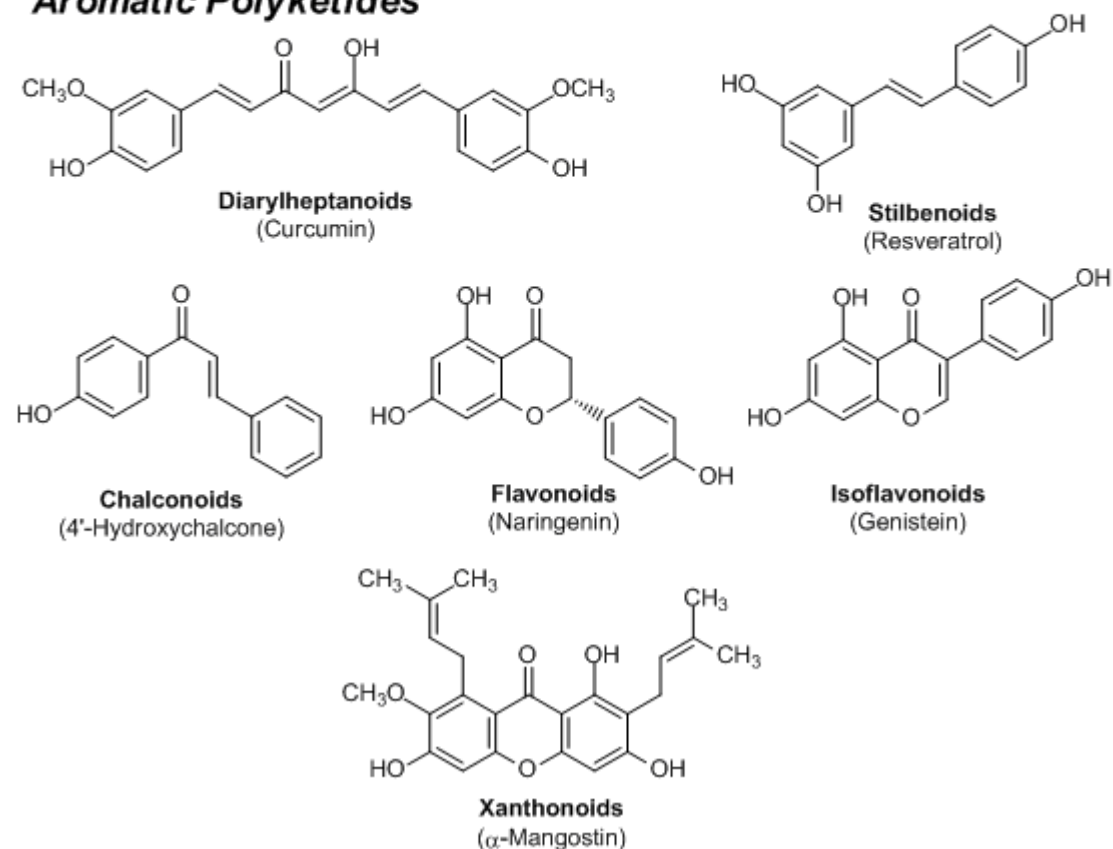




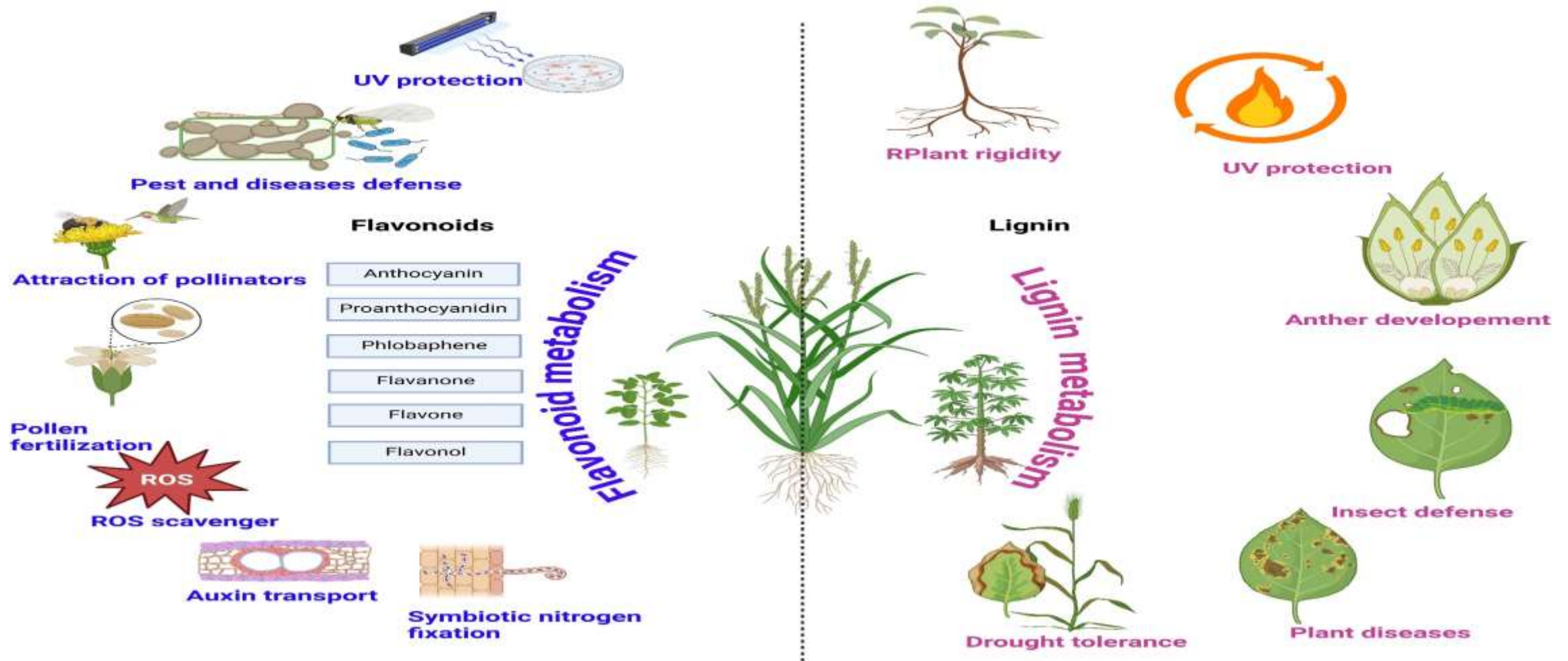
## Phenylpropanoids

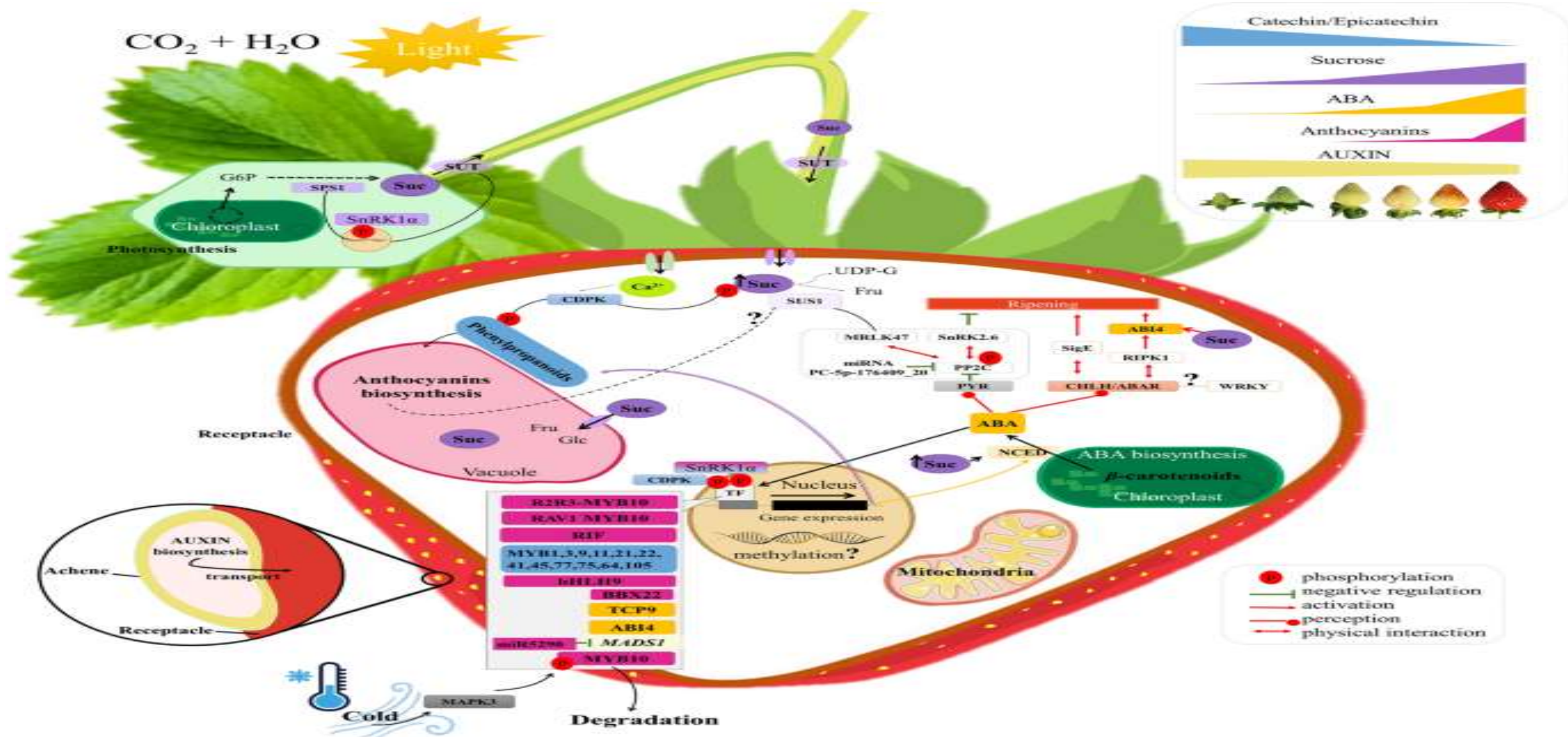


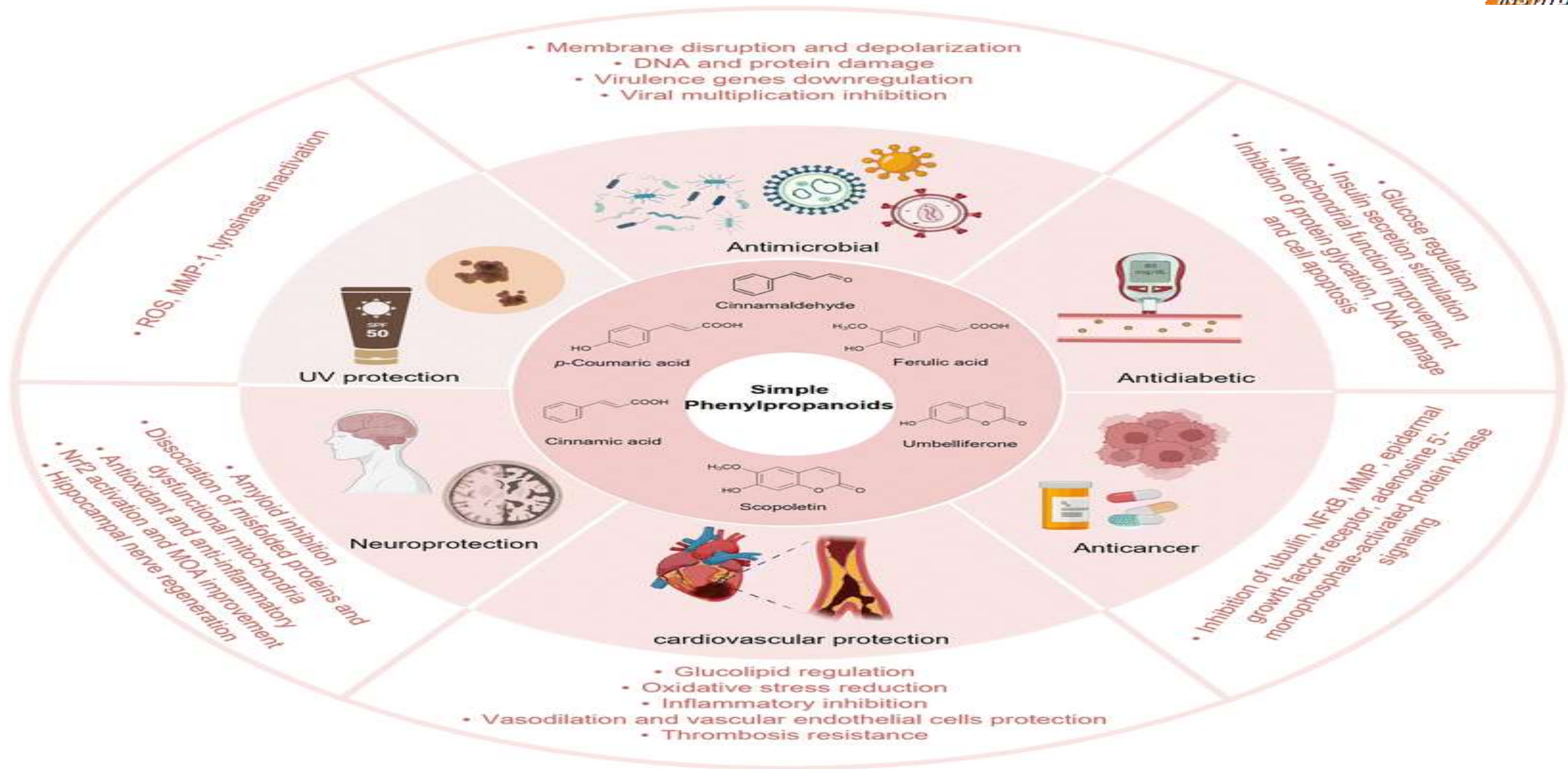
## Aromatic Polyketides



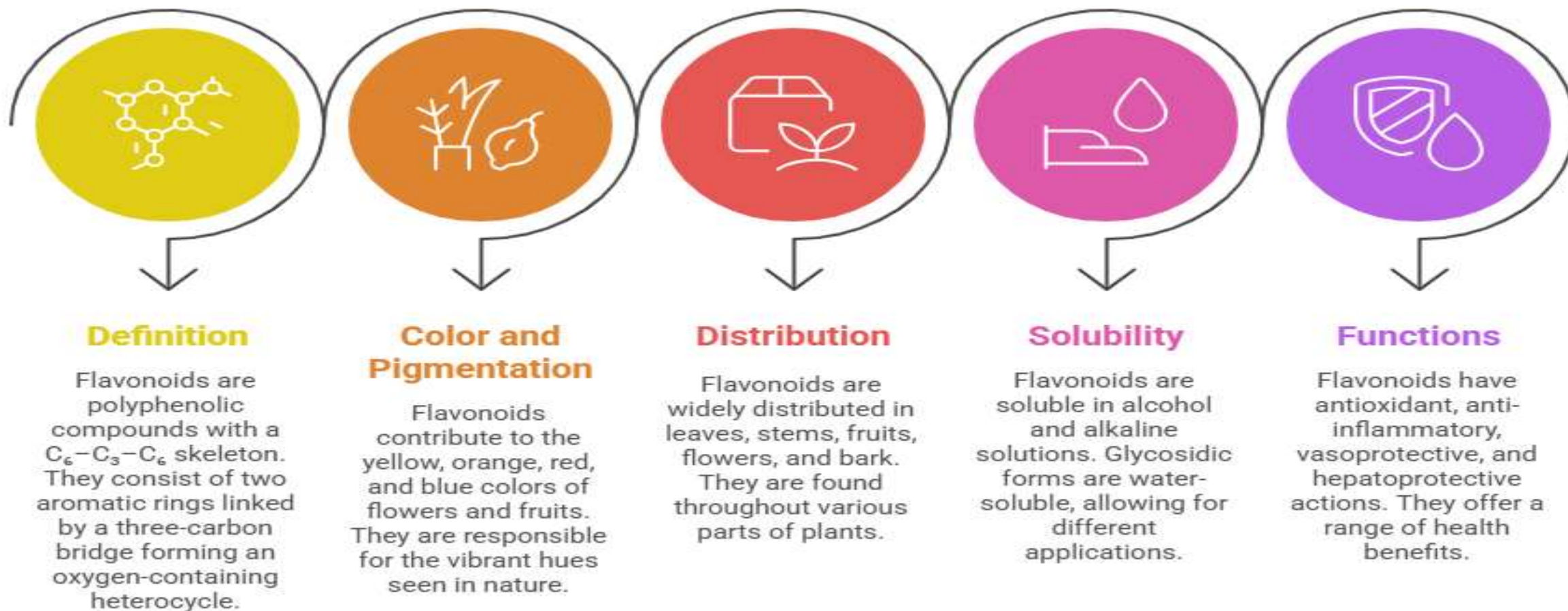
## Biofunctions of phenylpropanoid

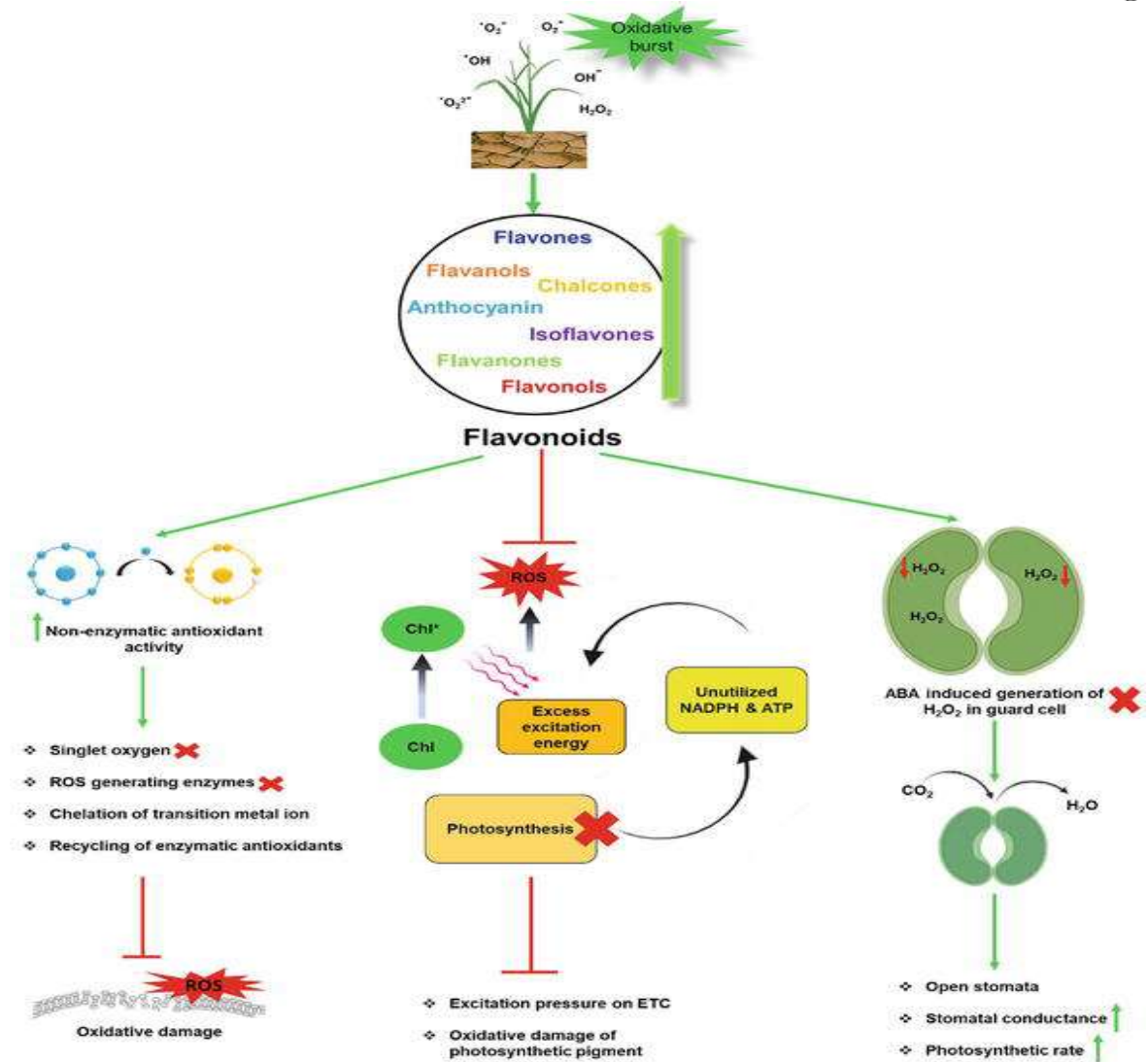
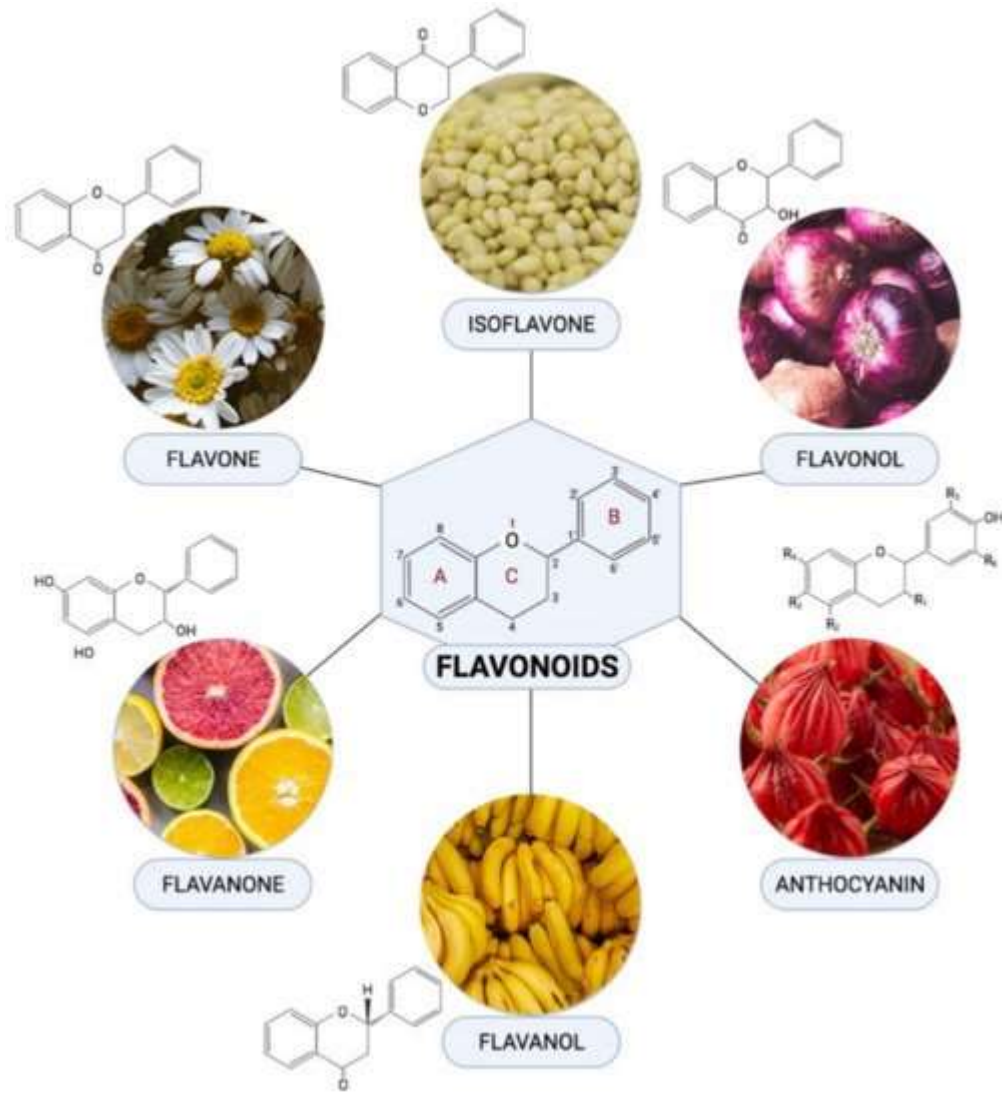


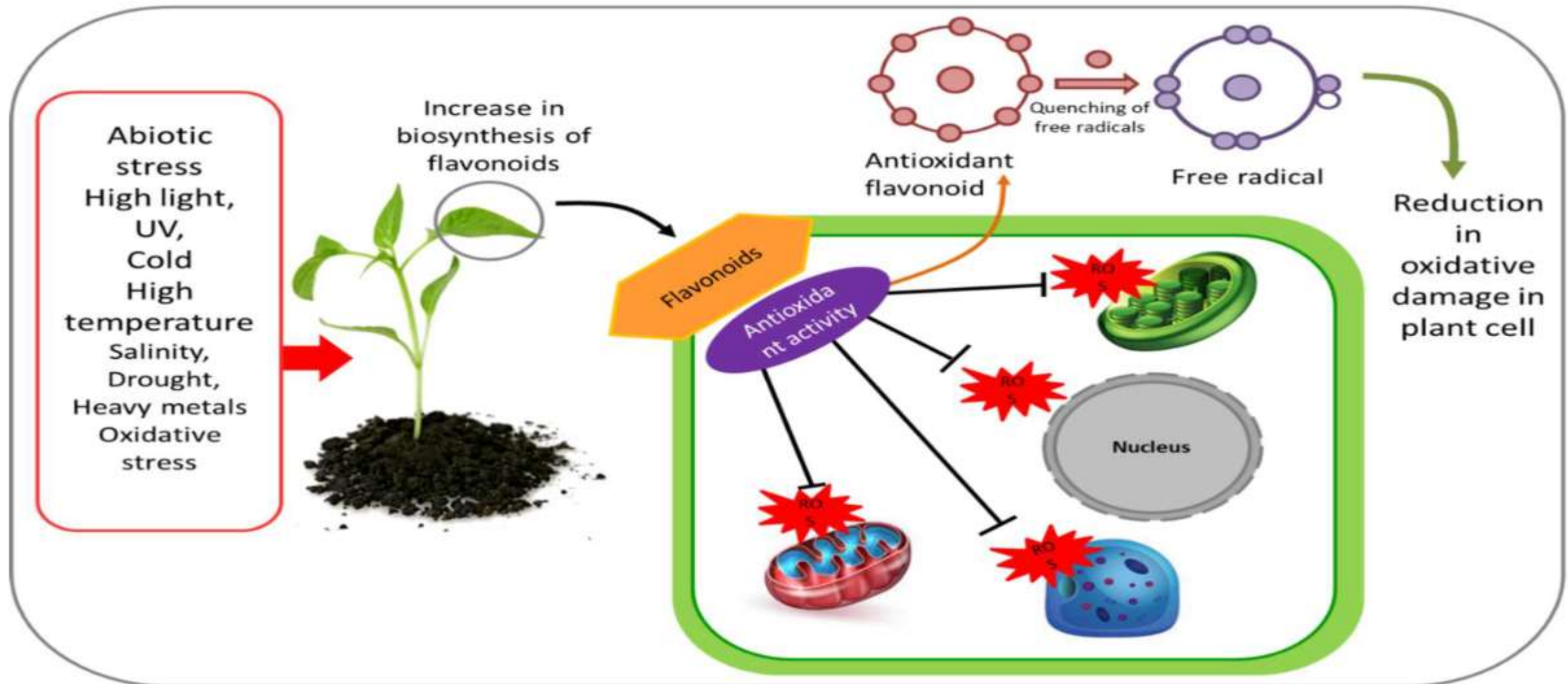




## Flavonoid Characteristics







## Flavonoid Classes

### Flavones

$C_2-C_3$  double bond and  $C_4$  ketone are present. Apigenin and Luteolin are examples.

### Flavonols

A hydroxyl group is located at the  $C_3$  position. Quercetin and Kaempferol are examples.

### Flavanones

The  $C_2-C_3$  bond is saturated. Naringenin is an example.

### Flavanols (Catechins)

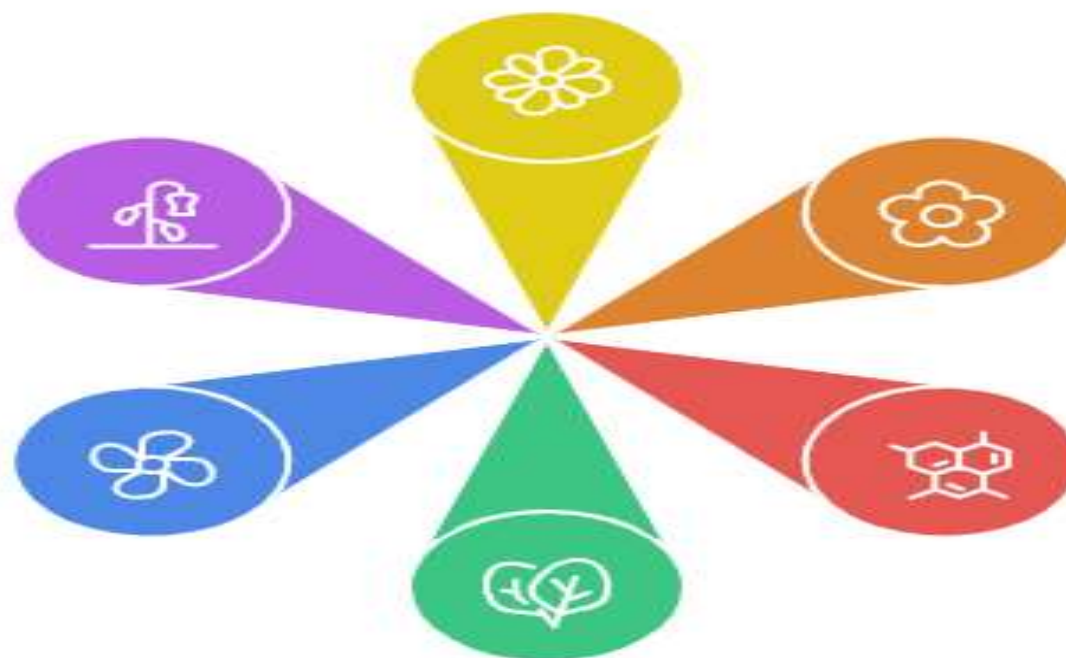
No  $C_4$  carbonyl group is present. Found in tea. (+)-Catechin and (-)-Epicatechin are examples.

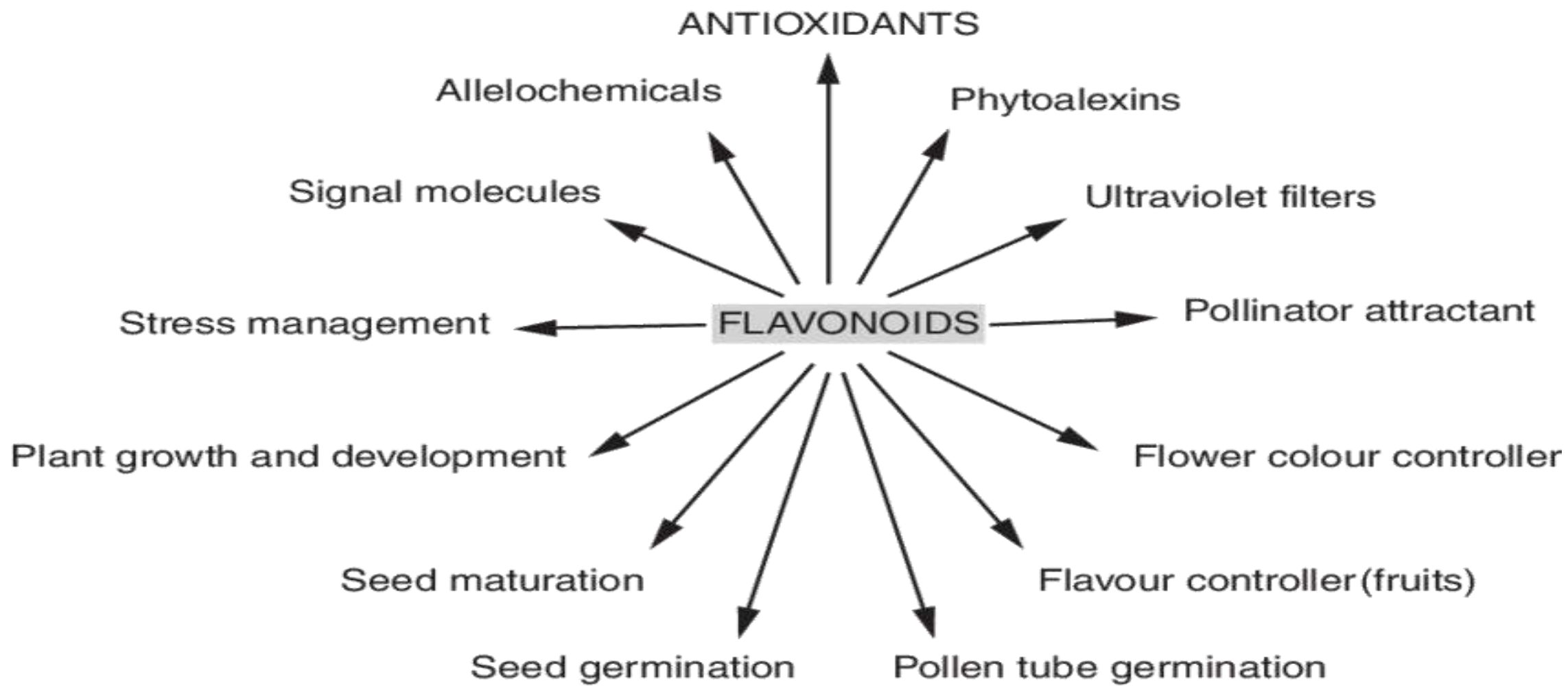
### Anthocyanidins

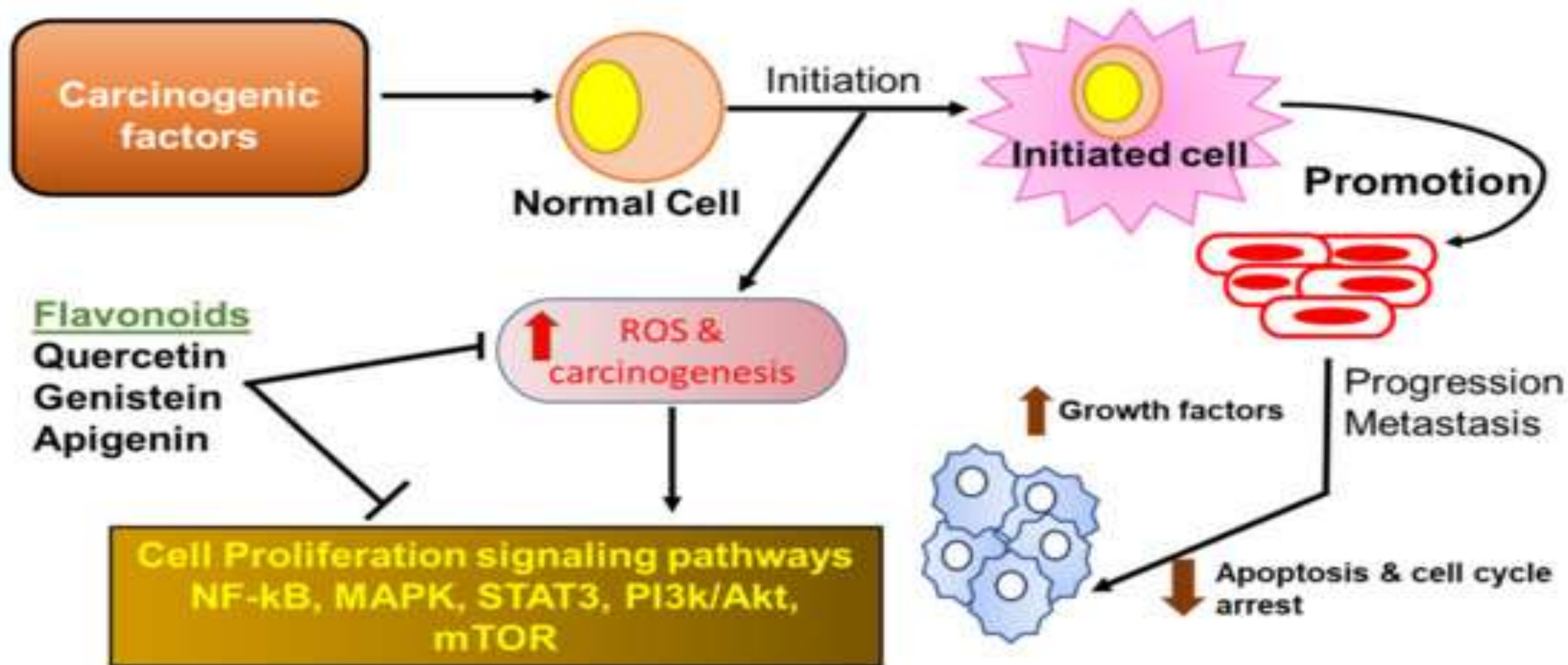
These are pigments found in flowers. Cyanidin and Delphinidin are examples.

### Isoflavones

The B-ring is attached at the  $C_3$  position. Genistein and Daidzein are examples.

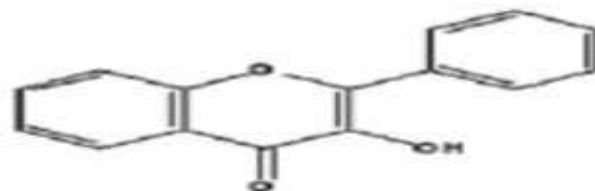








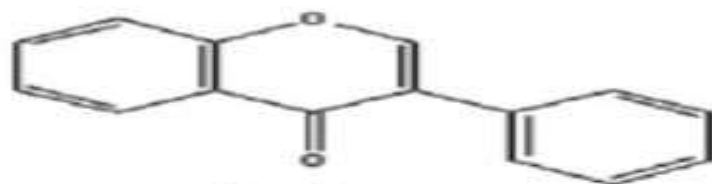
Flavone



Flavonol



Flavanone



Isoflavone



Flavanonol



Flavan



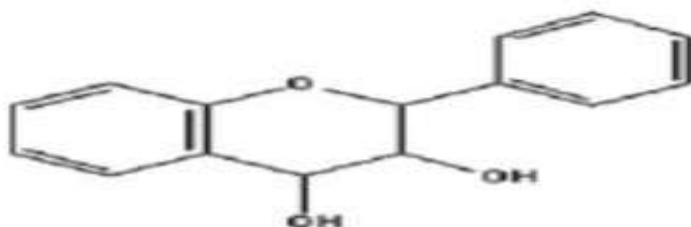
Flavanol



Chalcone



Dihydrochalcone

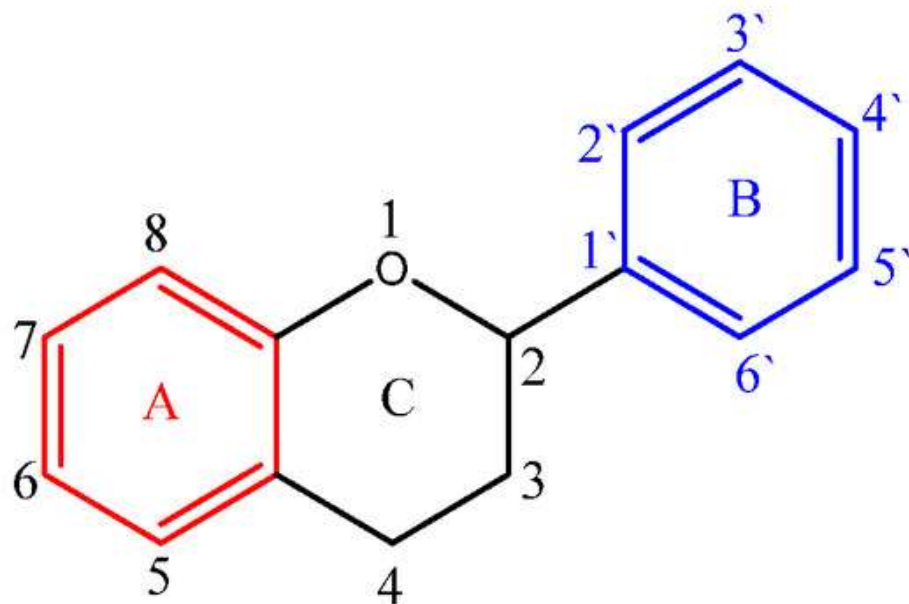
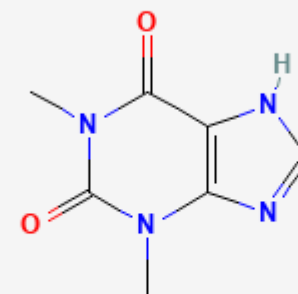


Flavan-3,4-diol



Anthocyanidin

NAME THE STRUCTURE



NAME THE STRUCTURE

