

**LEMBAR PENGESAHAN  
BAHAN AJAR NON ISBN**

1	Judul	:	Molecular diagnosis and therapy
2	Penyusun	:	drg. Dian YosiArinawati, MDSc, PhD
3	NIK	:	19880106201410 173 215
4	Unit Kerja	:	Program StudiKedokteran Gigi FKIK UMY

Yogyakarta, 29 Mei 2019  
Ketua Program Studi



(Dr. drg. ErlinaSihMahanani, M. Kes)  
NIP/NIK: 19701014200410173067

# MOLECULAR DIAGNOSIS AND THERAPY (E-LEARNING)

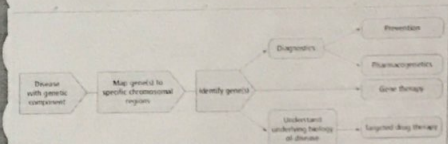
NOVEMBER 8<sup>TH</sup>, 2018

drg. Dian Yosi Arinawati, MDSc, PhD

## MOLECULAR DIAGNOSTIC

- Components involve in molecular biology:
  - DNA
  - RNA
  - Protein

## MOLECULAR DIAGNOSIS



Steps involved in a genetic approach to the diagnosis and treatment of disease

BLAAC, *Perseus* 2003, 16: 379- 383

## MOLECULAR DIAGNOSTIC

The utilization of molecular biology technique to analyze biological marker to identify people who are at risk for acquiring specific diseases and diagnose at molecular level.

## MOLECULAR DIAGNOSIS

- Area:
  - Infectious diseases molecular testing: AIDS - HIV infection, etc
  - Molecular oncology testing: cancer
  - Inherited diseases molecular testing
  - Pharmacogenetics testing

## MOLECULAR DIAGNOSIS

- Impact on human health:
  - Applications of biomarkers, pharmacogenomics, and molecular diagnostics technologies for personalized medicine
  - Advances in detection, monitoring, and treatment of the molecular causes of disease
  - Genetic variations affecting drug response, drug metabolism, adverse effects, and/or disease progression
  - Development and clinical use of drug/diagnostic combinations
  - It offers a great tool for assessing disease prognosis and therapy response and detecting molecular residual disease