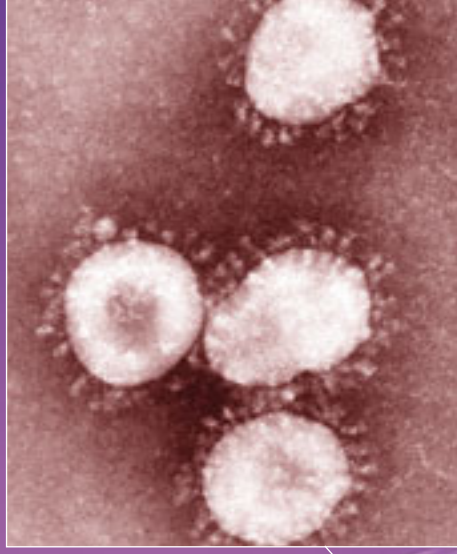


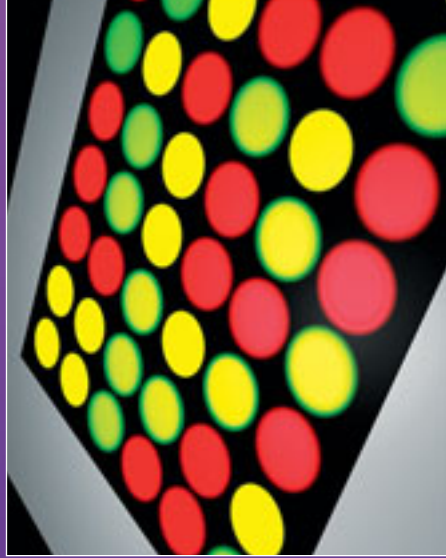
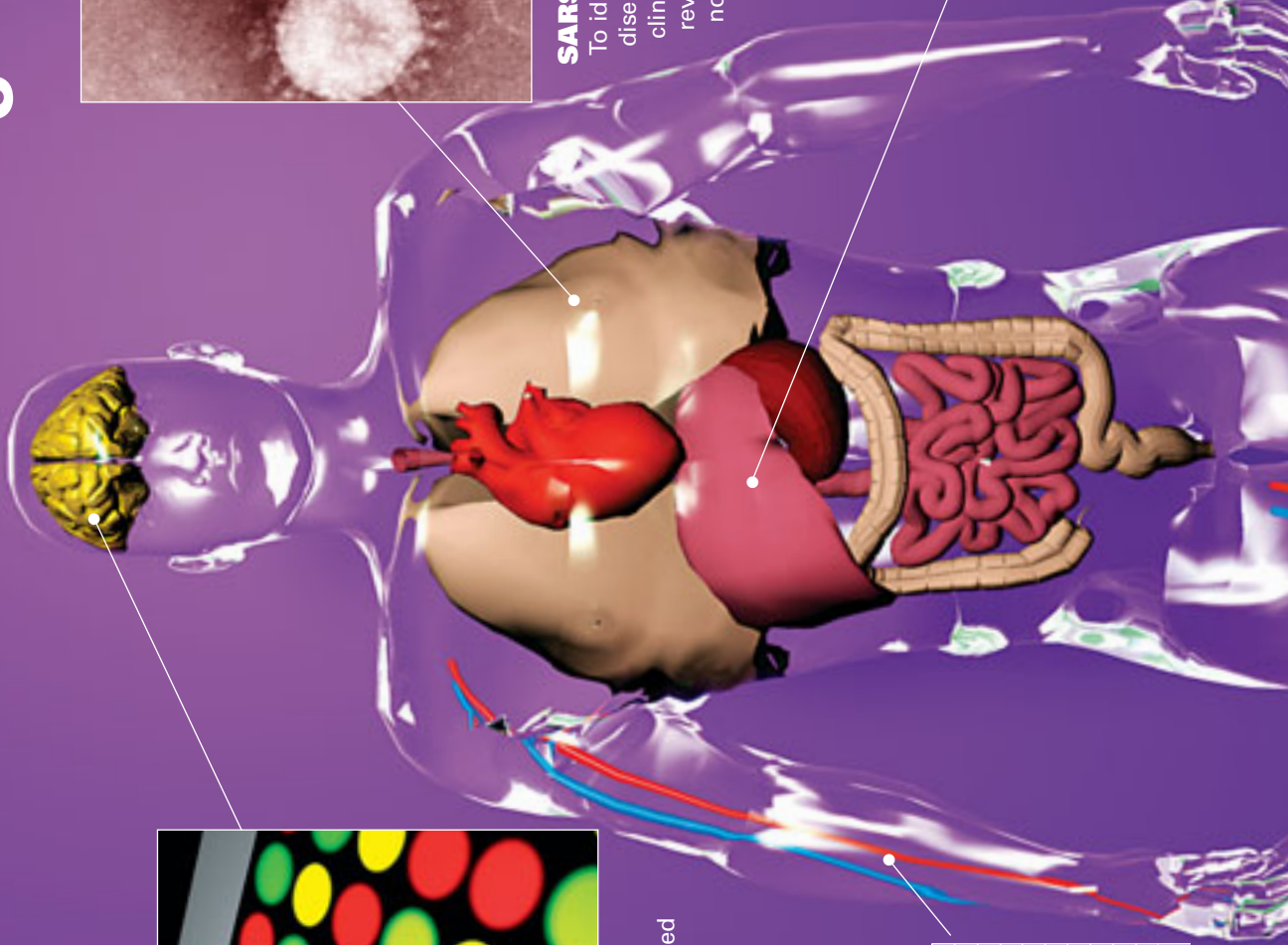
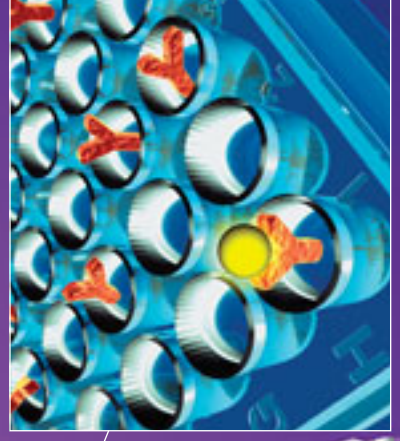
# New Frontiers of Diagnosis

CENTERS FOR DISEASE CONTROL AND PREVENTION



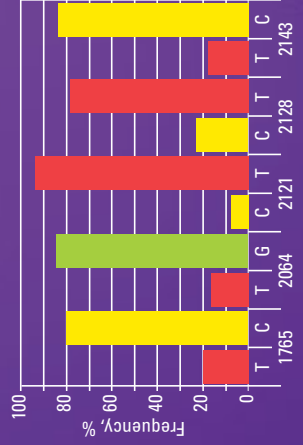
## SARS and PCR.

To identify people who carry communicable diseases such as SARS as early as possible, clinicians often rely on real-time and/or reverse-transcriptase PCR to verify a diagnosis based on uncertain symptoms.



## Cancer and arrays.

Changes in gene expression, as indicated by altered microarray patterns, are the first sign of the onset of diseases such as cancer.

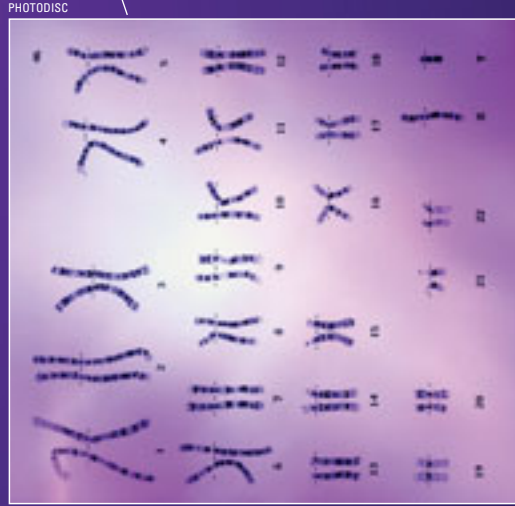


### HIV and SNPs.

To determine possible drug resistance in viruses such as HIV, clinicians rely on gene sequencing and SNP detection to highlight particular viral strains.

### Malaria and monoclonals.

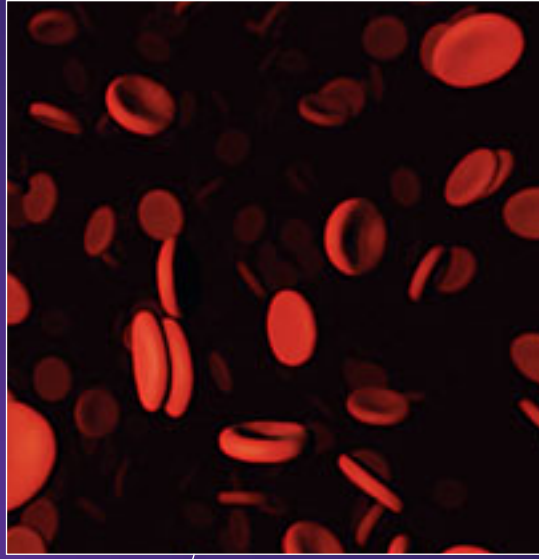
Using antibodies directed against cell-surface or viral molecules in ELISAs, technicians look for evidence of infectious organisms such as malarial parasites.



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### Chromosomes and karyotypes.

Using techniques such as microscopy and fluorescence in situ hybridization, clinicians identify the chromosomal abnormalities and gene deletions that lead to disease.



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### Metabolism and analysis.

Clinicians use methods such as GC, LC, and MS to quantify analytes in blood plasma and other samples, to identify inherited and acquired metabolic conditions.

modern drug discovery  
**mdd**  
from concept to development