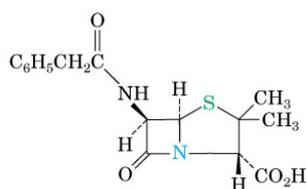
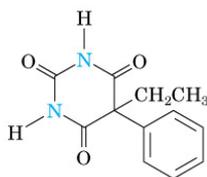


Eterocicli



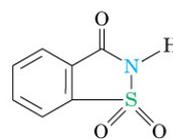
Penicillina G

antibiotico



Fenobarbitale

sedativo



Saccarina

edulcorante

Eterocicli

Eterocicli insaturi a 5 termini



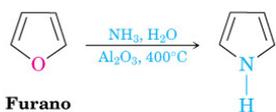
Pirrolo



Furano



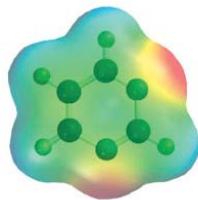
Tiofene



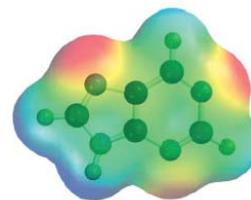
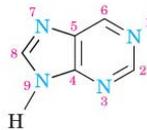
Furano

Pirrolo

Eterocicli



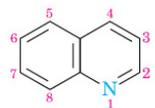
Pirimidina



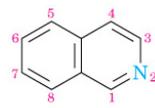
Purina

Eterocicli

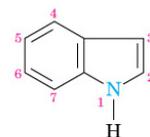
Eterocicli ad anelli condensati



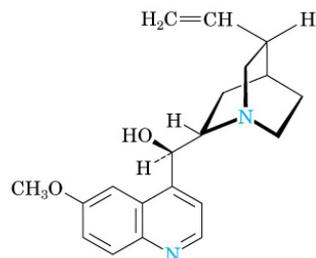
Chinolina



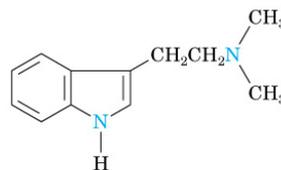
Isochinolina



Indolo



**Chinino, un farmaco antimalarico
(alcaloide chinolinico)**

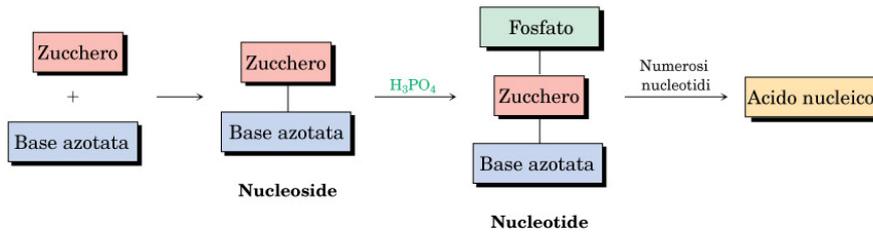


**N,N-Dimetiltriptamina, un allucinogeno
(alcaloide indolico)**

Acidi nucleici

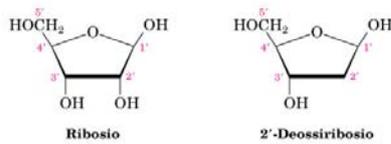
acido deossiribonucleico (DNA) e acido ribonucleico (RNA)
sono i portatori chimici dell'informazione genetica della cellula
ovvero l'informazione che determina la natura, crescita e divisione della cellula, biosintesi di
proteine ed enzimi, ...

Si tratta di biopolimeri formati da nucleotidi



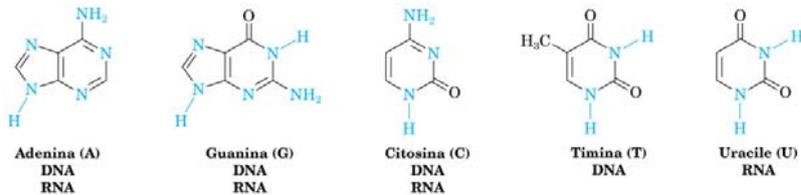
Acidi nucleici

Gli zuccheri: aldopentosi



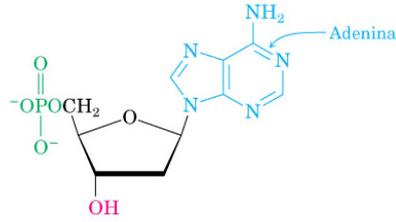
Le basi azotate: purine sostituite ...

e pirimidine sostituite

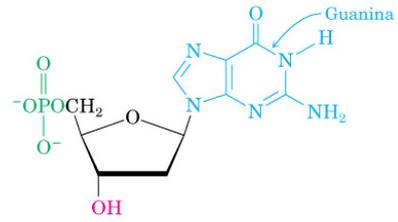


Acidi nucleici

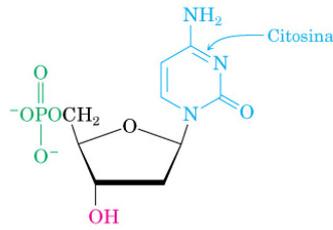
Deossiribonucleotidi



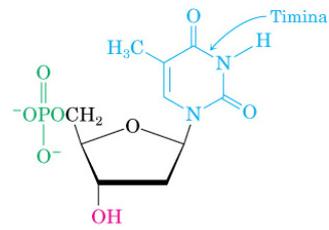
2'-Deossiadenosina 5'-fosfato



2'-Deossiguanosina 5'-fosfato



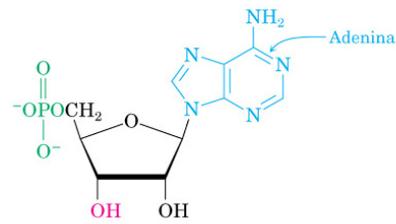
2'-Deossicitidina 5'-fosfato



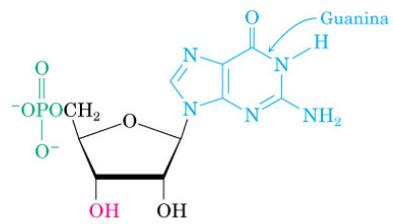
2'-Deossitimidina 5'-fosfato

Acidi nucleici

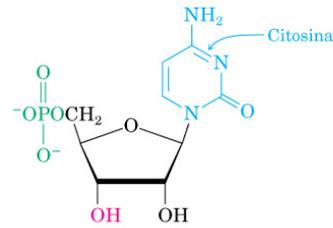
Ribonucleotidi



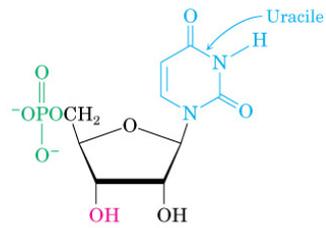
Adenosina 5'-fosfato



Guanosina 5'-fosfato



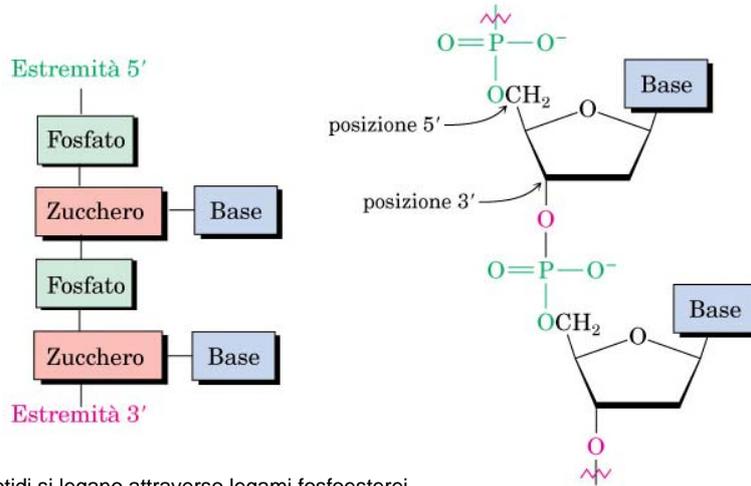
Citidina 5'-fosfato



Uridina 5'-fosfato

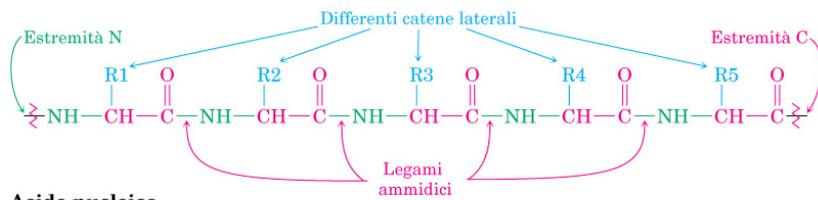
Acidi nucleici

Struttura generale del DNA.

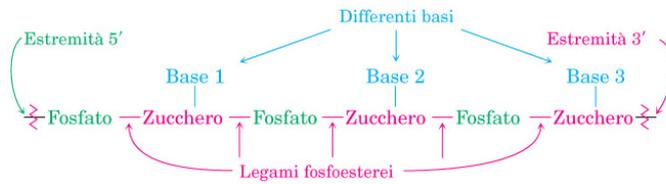


Acidi nucleici

Proteina

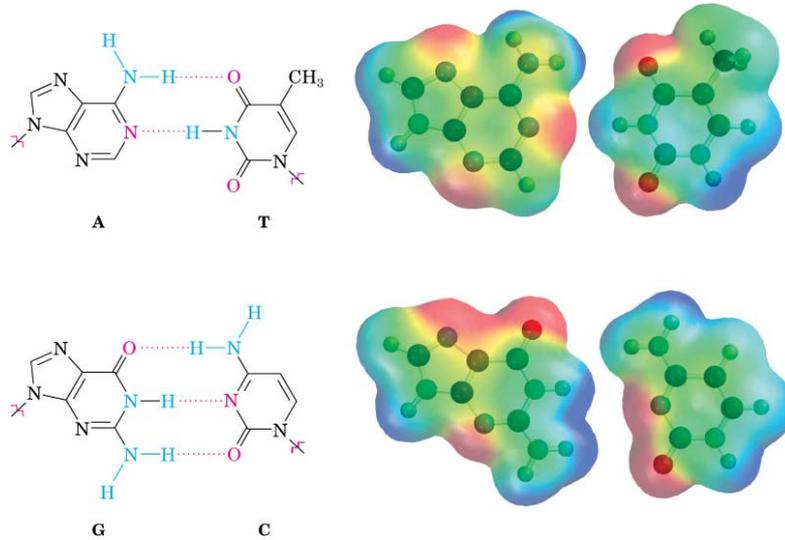


Acido nucleico



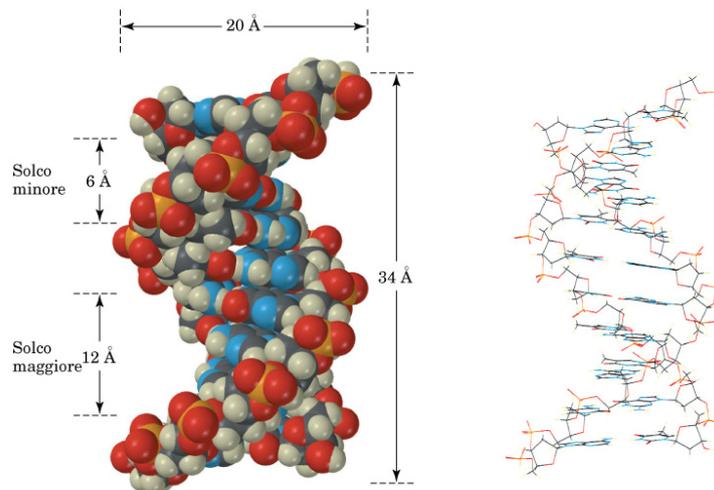
Acidi nucleici

Il legame a idrogeno tra le coppie di basi nella doppia elica del DNA. Le mappe di potenziale elettrostatico mostrano che le facce delle basi sono relativamente neutre (verdi) mentre i bordi hanno regioni positive (blu) e negative (rosso). L'accoppiamento di G con C e di A con T tiene assieme regioni con carica opposta.



Acidi nucleici

Un giro (360°) della doppia elica del DNA rappresentato nel formato space-filling e a bastoncino. Lo scheletro fosfocuccherino corre lungo la parte esterna dell'elica e le basi azotate si legano l'una all'altra nella parte interna. Sono visibili il solco maggiore e minore.

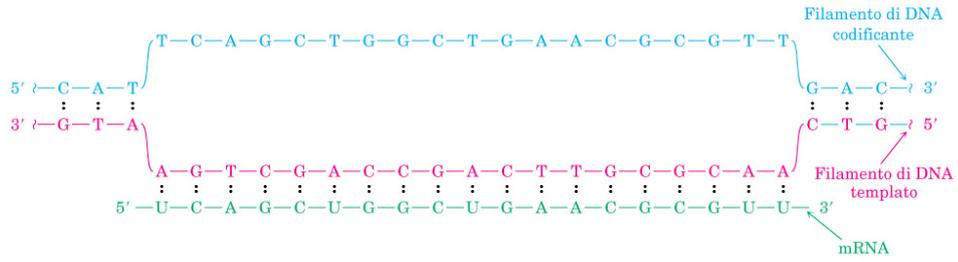


Molecole aromatiche policicliche planari possono inserirsi tra le basi impilate, p.es. agenti cancerogeni

Acidi nucleici

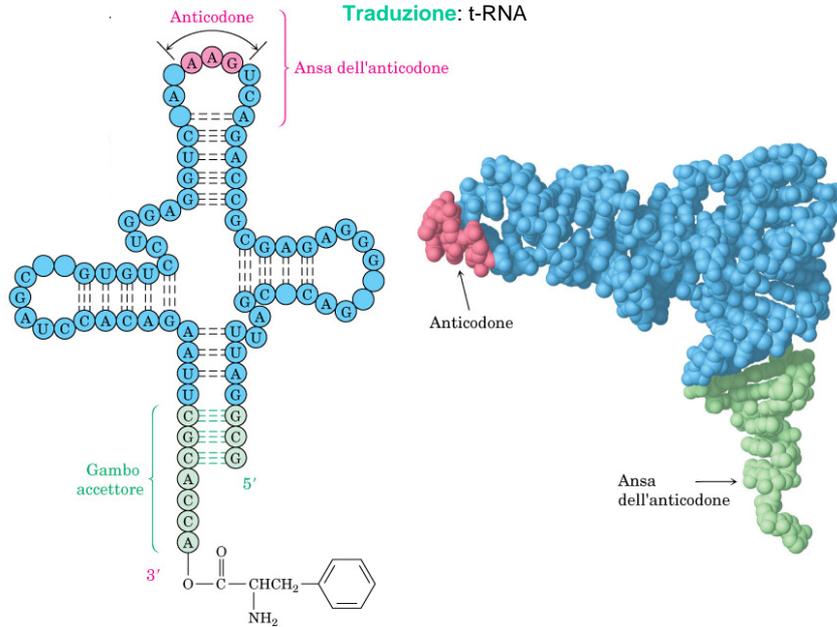
trascrizione

La biosintesi dell'RNA su un segmento di DNA che funge da stampo.



Acidi nucleici

Traduzione: t-RNA



Acidi nucleici

Rappresentazione schematica della biosintesi delle proteine. Le sequenze di basi del codone sull'mRNA vengono lette dai tRNA con la sequenza di basi dell'anticodone complementare. Gli RNA di trasferimento riuniscono i giusti aminoacidi nella posizione idonea per l'incorporazione nel peptide in accrescimento.

