





NCBI


- The National Center for Biotechnology Information (NCBI) is part of the United States National Library of Medicine (NLM), a branch of the National Institutes of Health (NIH).
- It is approved and funded by the government of the United States.
- The NCBI is located in Bethesda, Maryland.


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- The NCBI houses a series of databases relevant to biotechnology and biomedicine and is an important resource for bioinformatics tools and services.
 - Major databases include GenBank for DNA sequences and PubMed, a bibliographic database for biomedical literature. Other databases include the NCBI Epigenomics database.

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- All these databases are available online through the Entrez search engine.
 - NCBI was directed by David Lipman, one of the original authors of the BLAST sequence alignment program and a widely respected figure in bioinformatics.

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- NCBI had responsibility for making available the GenBank DNA sequence database since 1992.
 - GenBank coordinates with individual laboratories and other sequence databases, such as those of the European Molecular Biology Laboratory (EMBL) and the DNA Data Bank of Japan (DDBJ)

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- Gene has been implemented at NCBI to characterize and organize the information about genes.
 - It serves as a major node in the nexus of the genomic map, expression, sequence, protein function, structure, and homology data.

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- A unique GeneID is assigned to each gene record that can be followed through revision cycles.
 - Gene records for known or predicted genes are established here and are demarcated by map positions or nucleotide sequences.
 - Gene has several advantages over its predecessor, LocusLink, including, better integration with other databases in NCBI, broader taxonomic scope, and enhanced options for query and retrieval provided by the Entrez system

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- Protein database maintains the text record for individual protein sequences, derived from many different resources such as NCBI Reference Sequence (RefSeq) project, GenBank, PDB, and UniProtKB/SWISS-Prot.
 - Protein records are present in different formats including FASTA and XML and are linked to other NCBI resources.

- Source:

https://en.wikipedia.org/wiki/National_Center_for_Biotechnology_Information