

**Reading List**  
**BICH 407 Classic Papers**  
**Spring 2003**

Thursday, January 23

Pauling, L., Corey, R.B., and Branson, H.R. (1951) The structure of proteins: two hydrogen-bonded helical configurations of the polypeptide chain. Proc. Natl. Acad. Sci. USA **37**:205-211.

Thursday, January 30

Kendrew, J.C., Bodo, G., Dintzis, H.M., Parrish, R.G., Wyckoff, H., and Phillips, D.C. (1958) A three-dimensional model of the myoglobin molecule obtained by x-ray analysis. Nature **181**:662-666.

Thursday, February 6

Epstein, C.J., Goldberger, R.F., and Anfinsen, C.B. (1963) The genetic control of tertiary protein structure: Studies with model systems. Cold Spring Harbor Symp. Quant. Biol. **28**:439-449.

(optional review article to accompany main paper - Anfinsen, C.B. (1973) Principles that govern the folding of protein chains. Science **181**:223-230.)

Thursday, February 13

Watson, J.D. and Crick, F.H.C. (1953) Molecular structure of nucleic acids. A structure for deoxyribose nucleic acid. Nature **171**:737-738.

Wilkins, M.H.F., Stokes, A.R., and Wilson, H.R. (1953) Molecular structure of nucleic acids. Molecular structure of deoxypentose nucleic acids. Nature **171**:738-740.

Franklin, R.E. and Gosling, R.G. (1953) Molecular structure of nucleic acids. Molecular configuration in sodium thymonucleate. Nature **171**:740-741.

Watson, J.D. and Crick, F.H.C. (1953) Genetical implications of the structure of deoxyribonucleic acid. Nature **171**:964-967.

Thursday, February 20

Lehman, I.R., Bessman, M.J., Simms, E.S., and Kornberg, A. (1958) Enzymatic synthesis of deoxyribonucleic acid. I. Preparation of substrates and partial purification of an enzyme from *Escherichia coli*. J. Biol. Chem. **233**:163-170.

Thursday, February 27

Meselson, M. and Stahl, F.W. (1958) The replication of DNA in *Escherichia coli*. Proc. Natl. Acad. Sci. USA **44**:671-682.

Thursday, March 6

Brenner, S., Jacob, F., and Meselson, M. (1961) An unstable intermediate carrying information from genes to ribosomes for protein synthesis. Nature **190**:576-581.

Leder, P. and Nirenberg, M. (1964) RNA codewords and protein synthesis, II. Nucleotide sequence of a valine RNA codeword. Proc. Natl Acad. Sci. USA **52**:420-427.

Thursday, March 20

Hall, B.D. and Spiegelman, S. (1961) Sequence complementarity of T2 DNA and T2-specific RNA. Proc. Natl. Acad. Sci. USA **47**:137-146.

Thursday, March 27

Cohen, S., Chang, A., Boyer, H., and Helling, R. (1973) Construction of biologically functional bacterial plasmids *in vitro*. Proc. Natl. Acad. Sci. USA **70**:3240-3244.

Thursday, April 3

Maniatis, T., Hardison, R.C., Lacy, E., Lauer, J., O'Connell, C., Quon, D., Sim, G.K., and Efstratiadis (1978) The isolation of structural genes from libraries of eucaryotic DNA. Cell **15**:687-701.

Thursday, April 10

Berget, S.M., Moore, C., and Sharp, P.A. (1977) Spliced segments at the 5' terminus of adenovirus 2 late mRNA. Proc. Natl. Acad. Sci. USA **74**:3171-3175.

Thursday, April 17

Kruger, K., Grabowski, P.J., Zaug, A.J., Sands, J., Gottschling, D.E., and Cech, T.R. (1982) Self-splicing RNA: Autoexcision and autocyclization of the ribosomal RNA intervening sequence of Tetrahymena. Cell **31**:147-157.

Thursday, April 24

Saiki, R.K., Gelfand, D.H., Stoffel, S., Scharf, S.J., Higuchi, R., Horn, G.T., Mullis, K.B., and Erlich, H.A. (1988) Primer-directed enzymatic amplification of DNA with a thermostable DNA polymerase. Science **239**:487-491.