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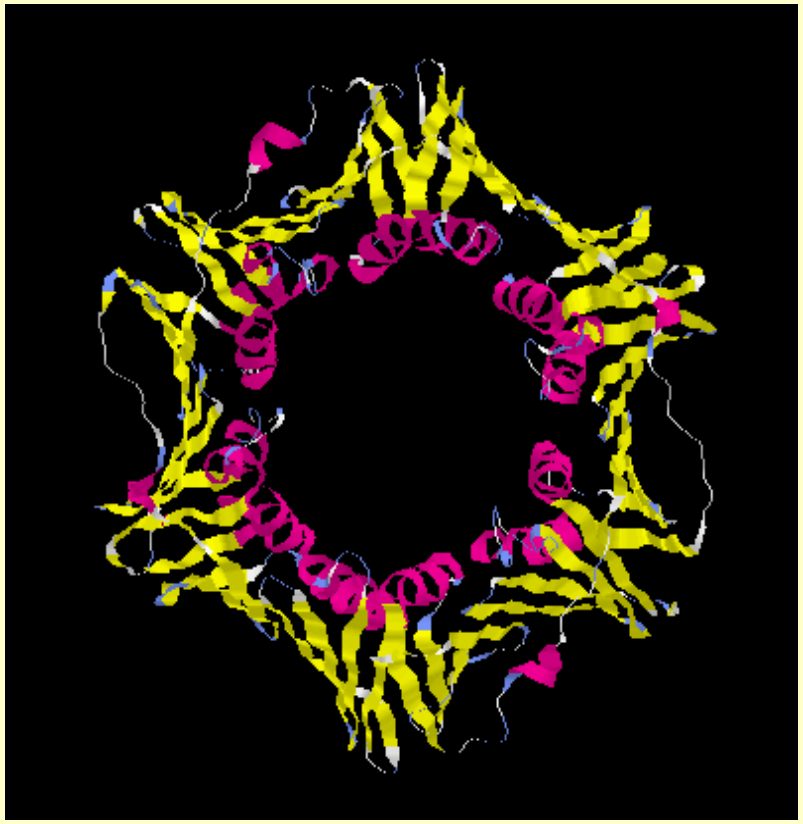

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Professor Emeritus
Biochemistry & Medicine

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- Monday and Friday 3:30 to 5:00 PM
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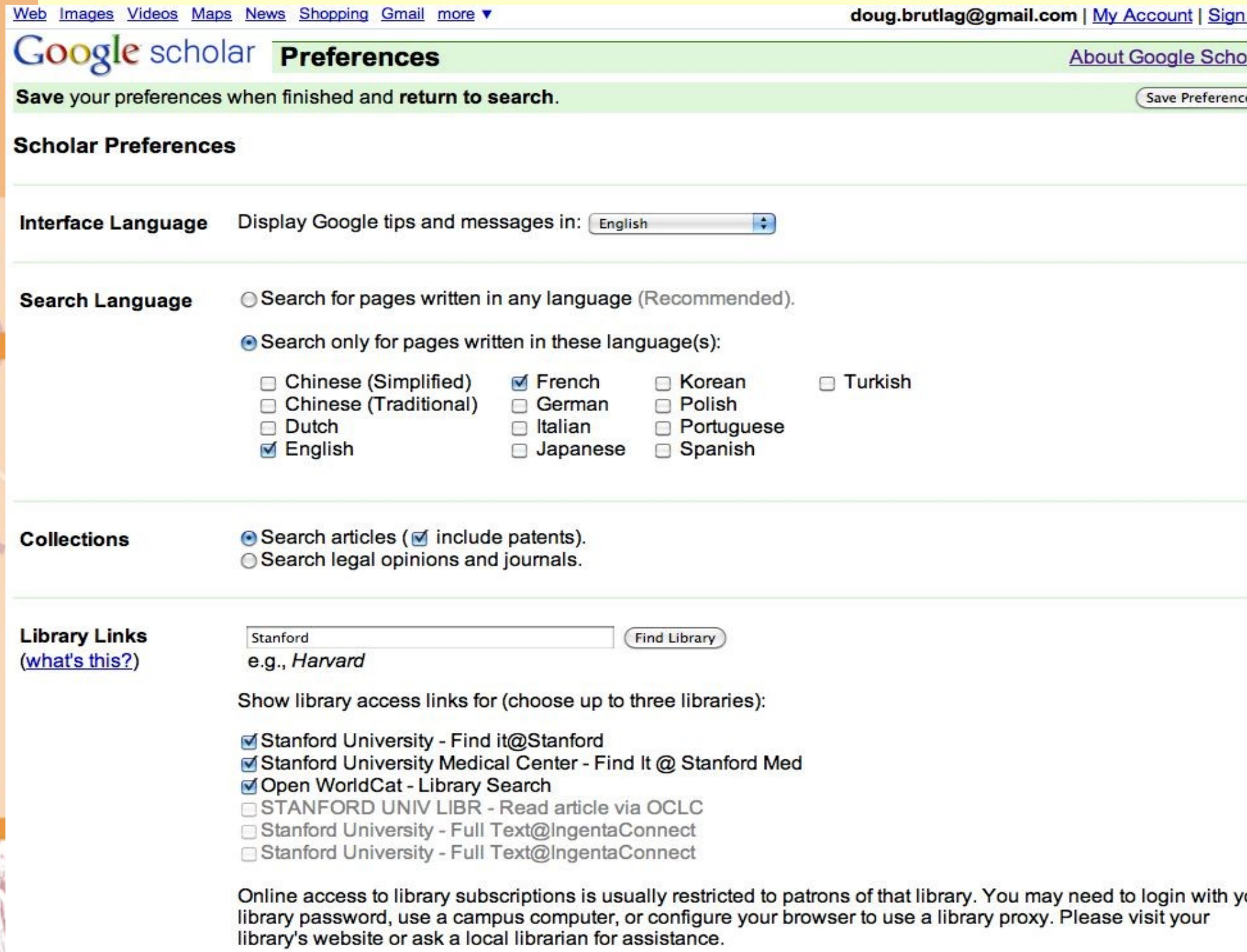

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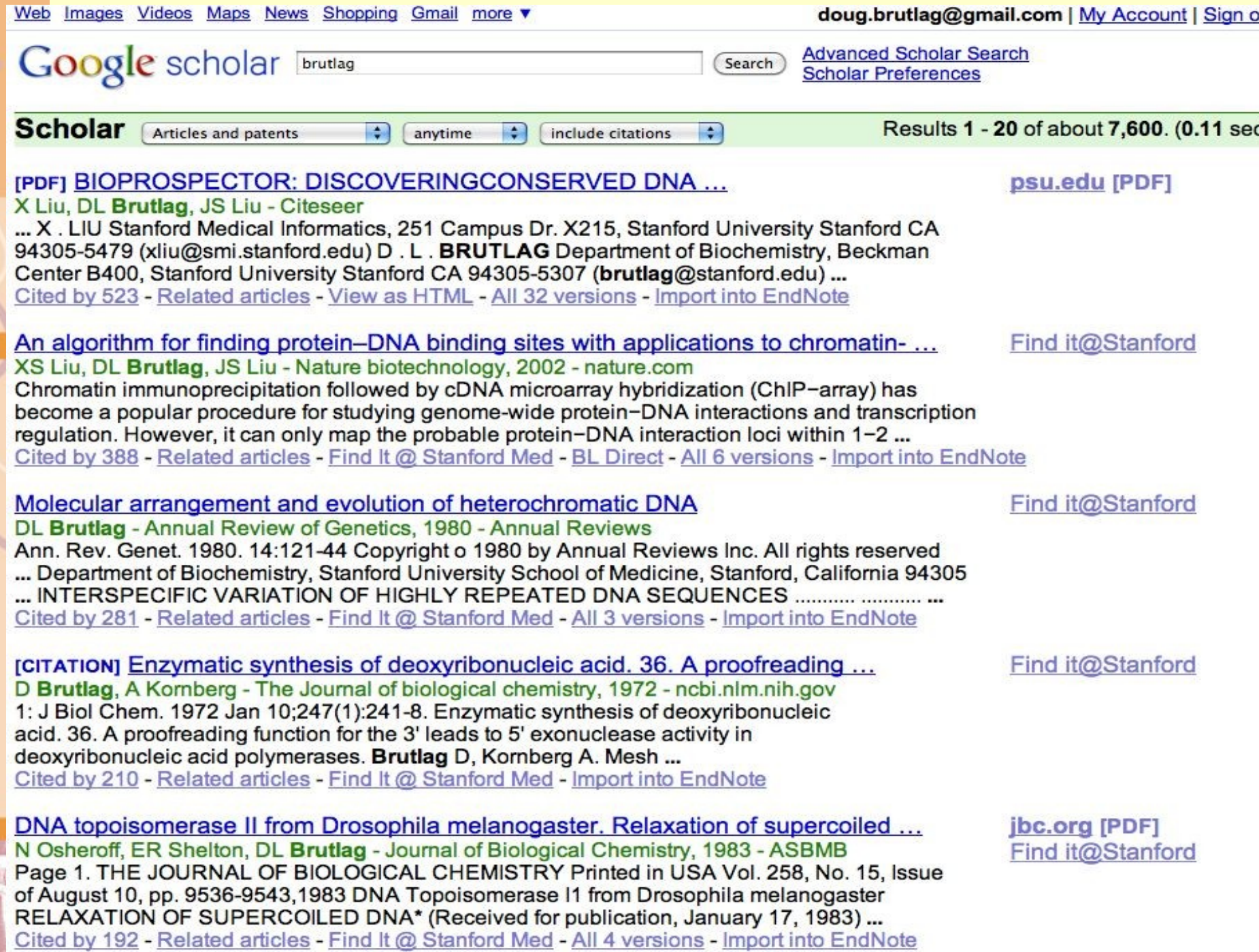

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1: J Biol Chem. 1972 Jan 10;247(1):241-8. Enzymatic synthesis of deoxyribonucleic acid. 36. A proofreading function for the 3' leads to 5' exonuclease activity in deoxyribonucleic acid polymerases. **Brutlag** D, Kornberg A. Mesh ...
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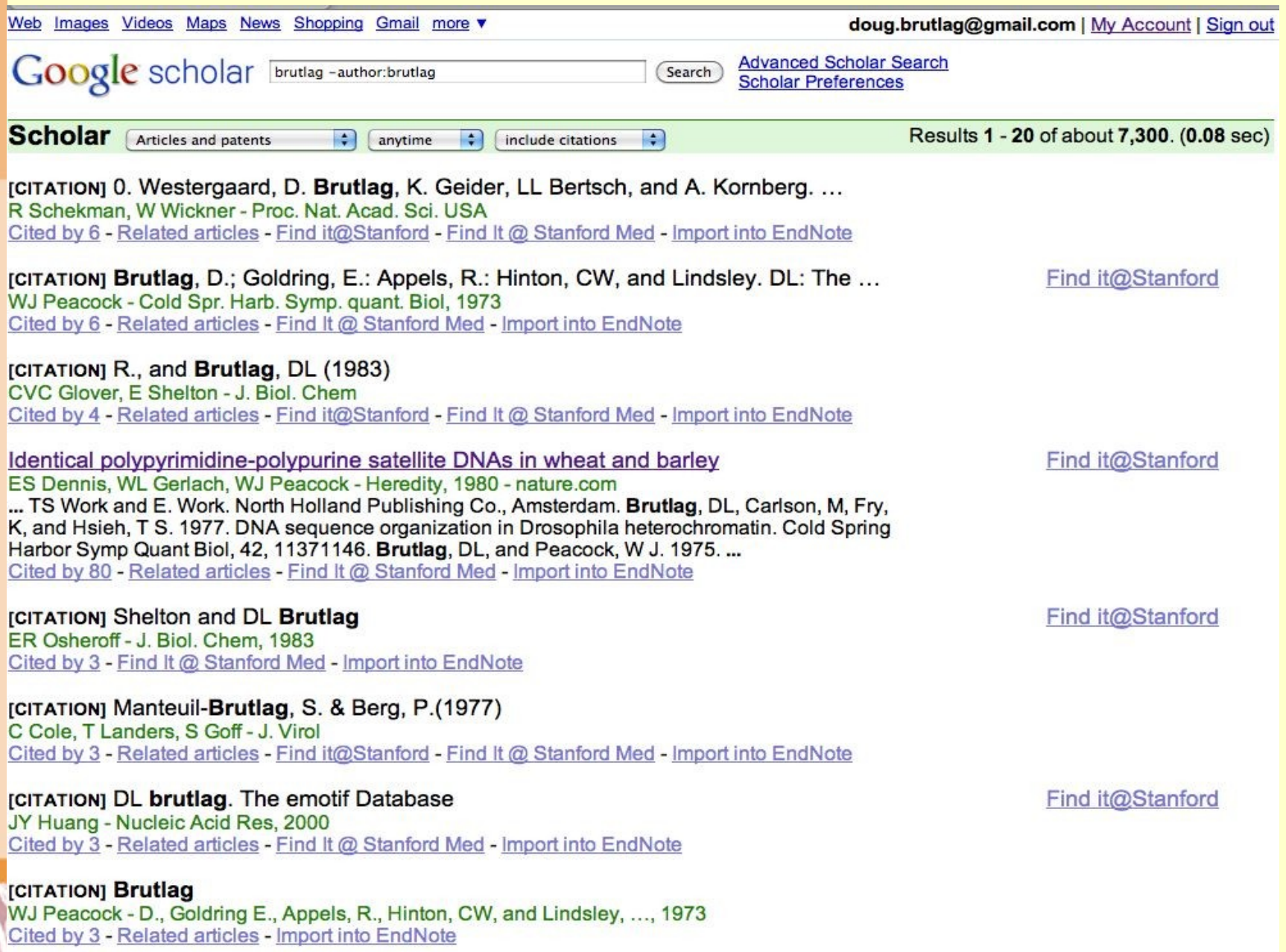

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[CITATION] **Brutlag**, D.; Goldring, E.: Appels, R.: Hinton, CW, and Lindsley. DL: The … Find it@Stanford
WJ Peacock - Cold Spr. Harb. Symp. quant. Biol, 1973
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Identical polypyrimidine-polypurine satellite DNAs in wheat and barley Find it@Stanford
ES Dennis, WL Gerlach, WJ Peacock - Heredity, 1980 - nature.com
... TS Work and E. Work. North Holland Publishing Co., Amsterdam. **Brutlag**, DL, Carlson, M, Fry, K, and Hsieh, T S. 1977. DNA sequence organization in Drosophila heterochromatin. Cold Spring Harbor Symp Quant Biol, 42, 11371146. **Brutlag**, DL, and Peacock, W J. 1975. ...
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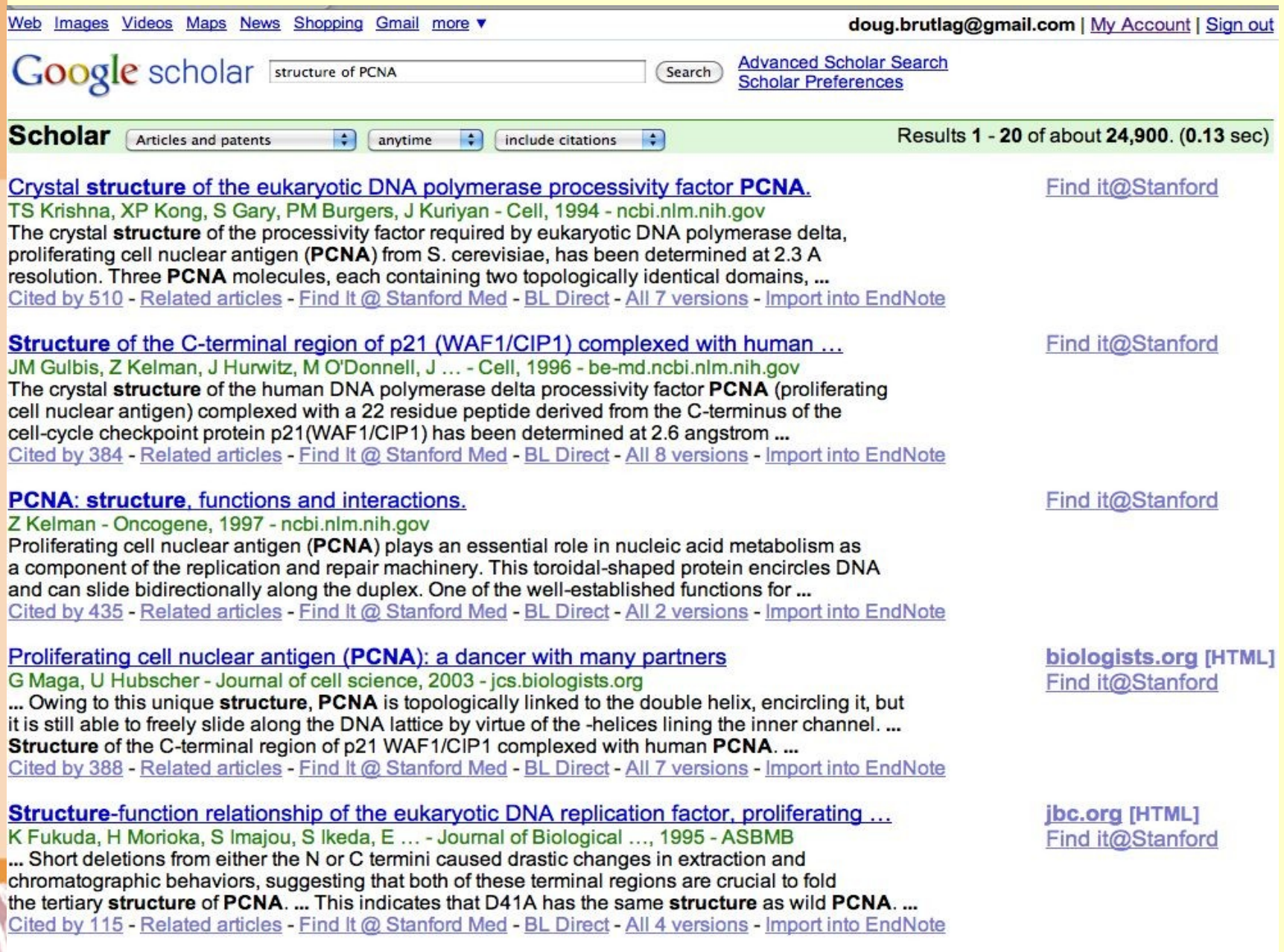

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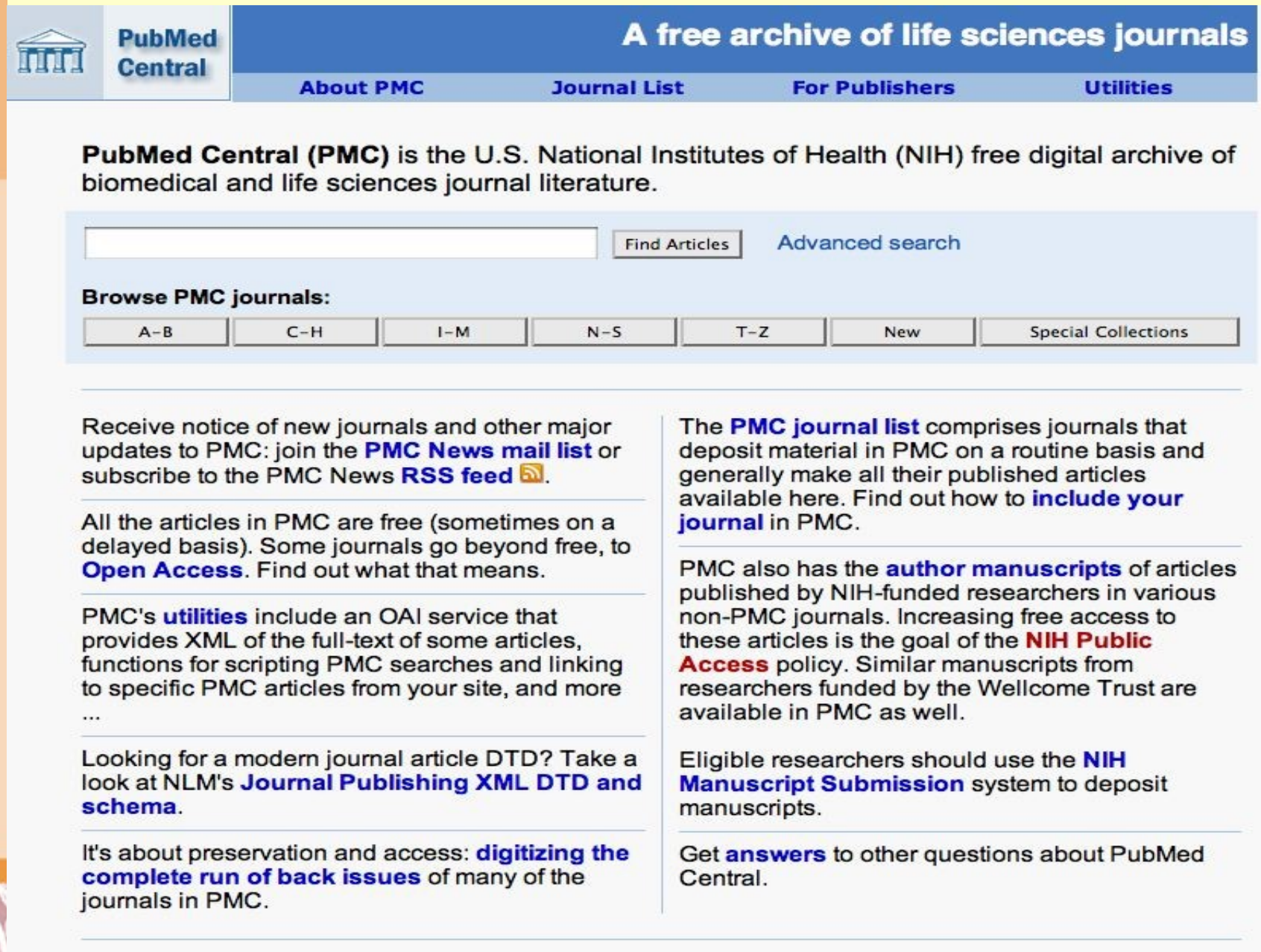

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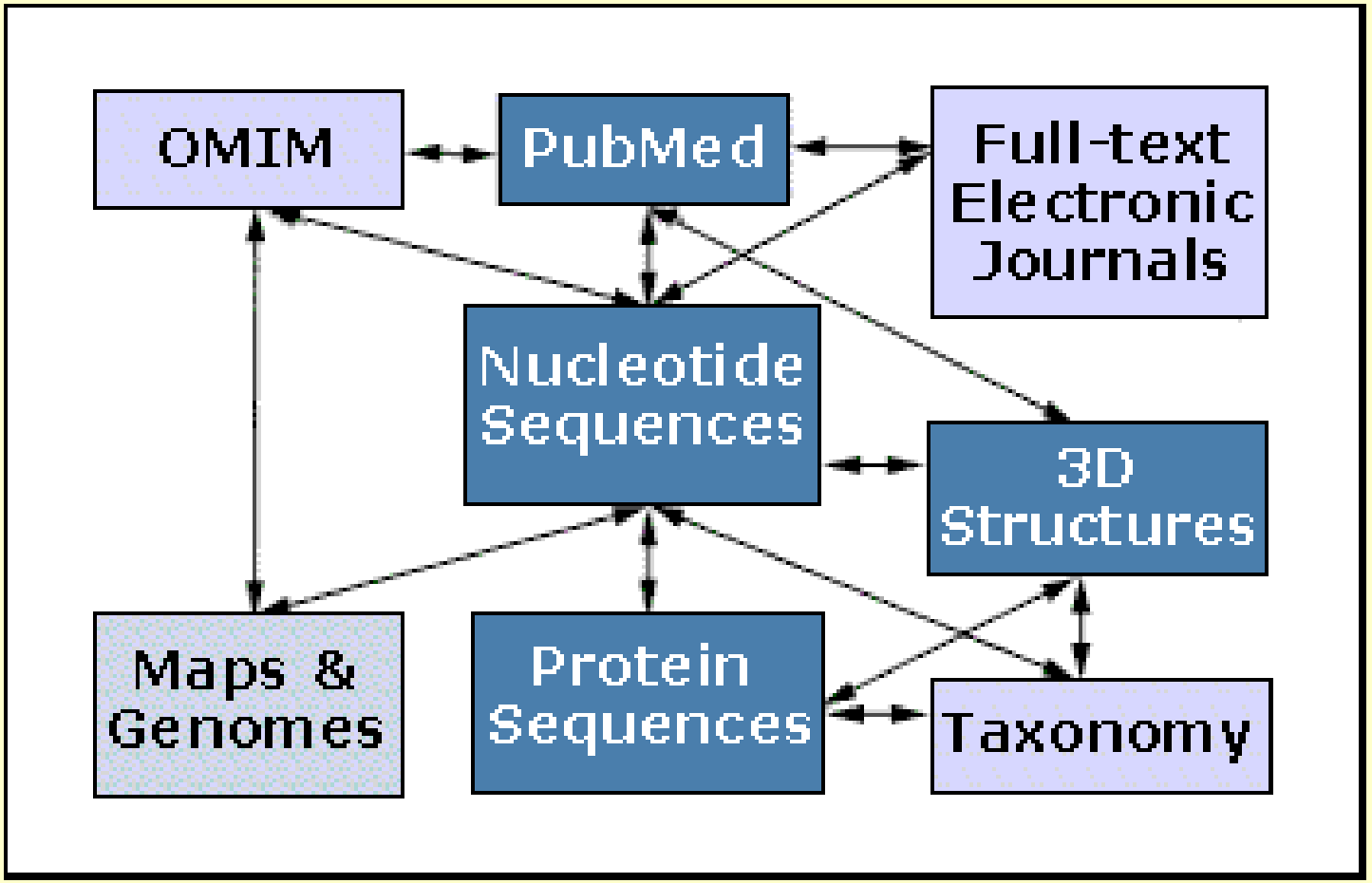

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6. Development and validation of a consistency based multiple structure alignment algorithm.
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   Bioinformatics. 2006 May 1;22(9):1080-7. Epub 2006 Feb 10.
   PMID: 16473868 [PubMed - indexed for MEDLINE]
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1. Analysis of replication factories in human cells by super-resolution light microscopy.
   Cseresnyes Z, Schwarz U, Green CM.
   BMC Cell Biol. 2009 Dec 16;10(1):88. [Epub ahead of print]
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2. PCNA and XPF cooperate to distort DNA substrates.
   Hutton RD, Craggs TD, White MF, Penedo JC.
   Nucleic Acids Res. . [Epub ahead of print]
   PMID: 20008103 [PubMed - as supplied by publisher]
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3. Nucleolin Associates With The Human Cytomegalovirus DNA Polymerase Accessory Subunit UL44 And Is Necessary For Efficient Viral Replication.
   Strang BL, Boulant S, Coen DM.
   J Virol. . [Epub ahead of print]
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4. Structural determinant for switching between the polymerase and exonuclease modes in the PCNA-replicative DNA polymerase complex.
   Nishida H, Mayanagi K, Kiyonari S, Sato Y, Oyama T, Ishino Y, Morikawa K.
   Proc Natl Acad Sci U S A. 2009 Nov 23. [Epub ahead of print]

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☐ **1: Proliferating Cell Nuclear Antigen**

Nuclear antigen with a role in DNA synthesis, DNA repair, and cell cycle progression. PCNA is requ for the coordinated synthesis of both leading and lagging strands at the replication fork during DNA replication. PCNA expression correlates with the proliferation activity of several malignant and non-malignant cell types.
Year introduced: 1995

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- Antigen, Proliferating Cell Nuclear
- PCNA

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MeSH for PCNA (2)

Entry Terms:

- Antigen, Proliferating Cell Nuclear
- PCNA

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- Nucleoproteins (1983-1987)

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The study of crystal structure using X-RAY DIFFRACTION techniques. (McGraw-Hill Dictionary Scientific and Technical Terms, 4th ed)
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1. Structure of the Siz/PIAS SUMO E3 ligase Siz1 and determinants required for SUMO modification of PCNA.
Yunus AA, Lima CD.
Mol Cell. 2009 Sep 11;35(5):669-82.
PMID: 19748360 [PubMed - indexed for MEDLINE]
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2. Expression, purification and preliminary X-ray analysis of proliferating cell nuclear antigen from the archaeon Thermococcus thioreducens.
Byrne-Steele ML, Ng JD.
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PMID: 19724129 [PubMed - indexed for MEDLINE]
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3. The crystal structure of Haloferax volcanii proliferating cell nuclear antigen reveals unique surface charge characteristics due to halophilic adaptation.
Winter JA, Christofi P, Morroll S, Bunting KA.
BMC Struct Biol. 2009 Aug 22;9:55.
PMID: 19698123 [PubMed - indexed for MEDLINE]
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4. A charged residue at the subunit interface of PCNA promotes trimer formation by destabilizing alternate subunit interactions.
Freudenthal BD, Gakhar L, Ramaswamy S, Washington MT.
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Translations:

PCNA	"proliferating cell nuclear antigen"[MeSH Terms] OR ("proliferating"[All Fields] AND "cell"[All Fields] AND "nuclear"[All Fields] AND "antigen"[All Fields]) OR "proliferating cell nuclear antigen"[All Fields] OR "pcna"[All Fields]
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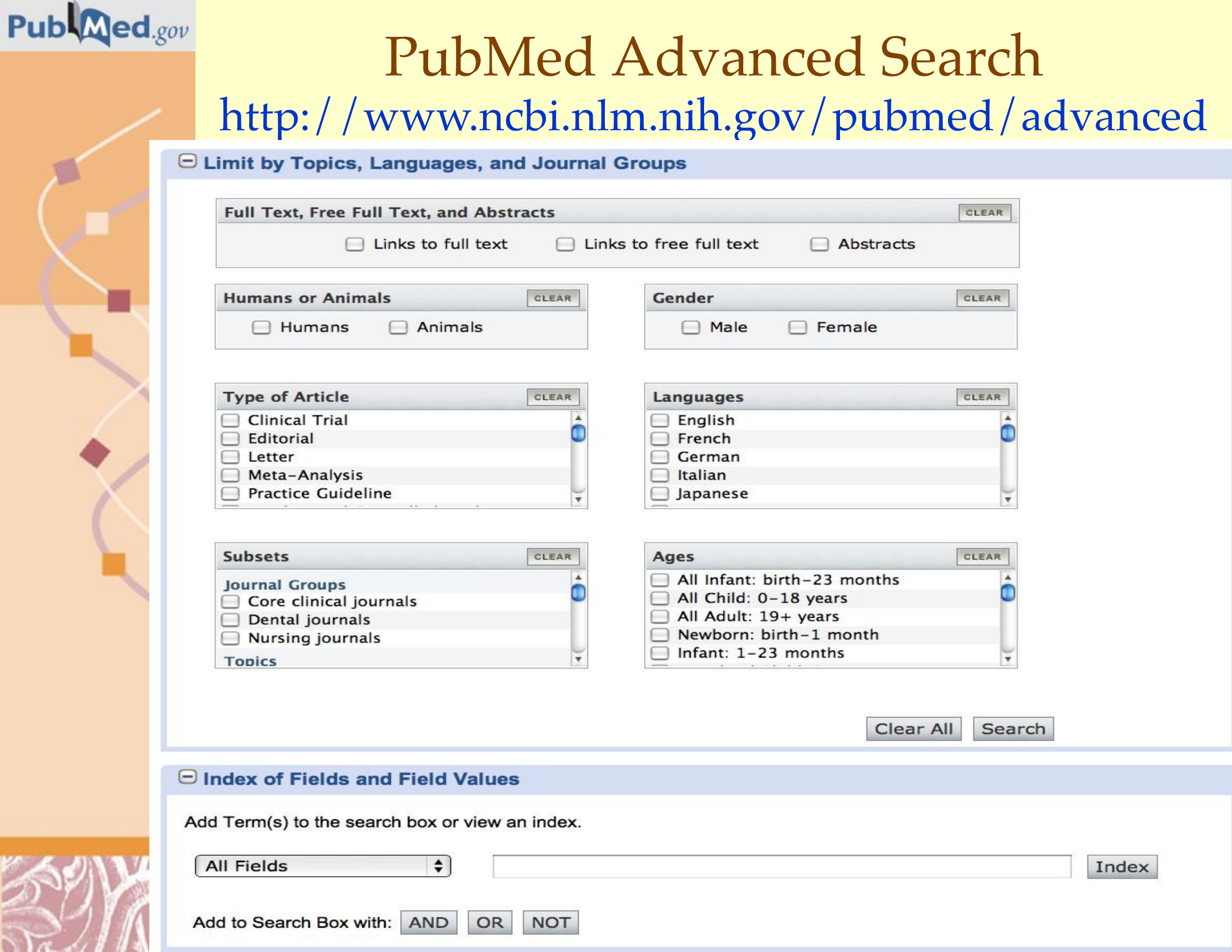

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DNA Repair (Amst). 2007 Jan 5; [Epub ahead of print]
PMID: 17208522 [PubMed - as supplied by publisher]

2: Naryzhny SN, Desouza LV, Siu KW, Lee H. — Related Articles, Links

Characterization of the human proliferating cell nuclear antigen physico-chemical properties: aspects of double trimer stability.
Biochem Cell Biol. 2006 Oct;84(5):669-676.
PMID: 17167529 [PubMed - as supplied by publisher]

3: Epstein JC, Wilson MS, Wilkosz S, Ireland G, O'Dwyer ST, Herrick SE. — Related Articles, Links

Human peritoneal adhesions show evidence of tissue remodeling and markers of angiogenesis.
Dis Colon Rectum. 2006 Dec;49(12):1885-92.
PMID: 17096176 [PubMed - in process]

4: Hwang H, Chen T, Nines RG, Shin HC, Stoner GD. — Related Articles, Links

Photochemoprevention of UVB-induced skin carcinogenesis in SKH-1 mice by brown algae polyphenols.
Int J Cancer. 2006 Dec 15;119(12):2742-9.
PMID: 17019718 [PubMed - indexed for MEDLINE]

5: Williams GJ, Johnson K, Rudolf J, McMahon SA, Carter L, Oke M, Liu H, Taylor GL, White MF, Naismith JH. — Related Articles, Links

Structure of the heterotrimeric PCNA from Sulfolobus solfataricus.
Acta Crystallograph Sect F Struct Biol Cryst Commun. 2006 Oct 1;62(Pt 10):944-8. Epub 2006 Sep 19.
PMID: 17012780 [PubMed - indexed for MEDLINE]

6: Kanagaraj R, Saydam N, Garcia PL, Zheng L, Janscak P. — Related Articles, Links

Human RECQ5beta helicase promotes strand exchange on synthetic DNA structures resembling a stalled replication fork.
Nucleic Acids Res. 2006;34(18):5217-31. Epub 2006 Sep 26.

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3: Dore AS, Kilkenny ML, Jones SA, Oliver AW, Roe SM, Bell SD, Pearl LH. Related Articles, Links

Structure of an archaeal PCNA1-PCNA2-FEN1 complex: elucidating PCNA subunit and client enzyme specificity.
Nucleic Acids Res. 2006;34(16):4515-26. Epub 2006 Aug 31.
PMID: 16945955 [PubMed - indexed for MEDLINE]

4: Johnson A, O'Donnell M. Related Articles, Links

DNA ligase: getting a grip to seal the deal.
Curr Biol. 2005 Feb 8;15(3):R90-2. Review.
PMID: 15694297 [PubMed - indexed for MEDLINE]

5: Kontopidis G, Wu SY, Zheleva DI, Taylor P, McInnes C, Lane DP, Fischer PM, Walkinshaw MD. Related Articles, Links

Structural and biochemical studies of human proliferating cell nuclear antigen complexes provide a rationale for cyclin association and inhibitor design.
Proc Natl Acad Sci U S A. 2005 Feb 8;102(6):1871-6. Epub 2005 Jan 28.
PMID: 15681588 [PubMed - indexed for MEDLINE]

6: Sakurai S, Kitano K, Yamaguchi H, Hamada K, Okada K, Fukuda K, Uchida M, Ohtsuka E, Morioka H, Hakoshima T. Related Articles, Links

Structural basis for recruitment of human flap endonuclease 1 to PCNA.
EMBO J. 2005 Feb 23;24(4):683-93. Epub 2004 Dec 16.

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Year introduced: 1995

2: proliferating cell nuclear antigen p145 [Substance Name] Links
MW 145 kDa; sequence known
Date introduced: January 24, 1995

3: XR5 protein, Arabidopsis [Substance Name] Links
a SET-domain protein that binds proliferating cell nuclear antigen; GenBank DQ074689
Date introduced: October 4, 2006

4: PDIP38 protein, human [Substance Name] Links
interacts with the p50 subunit of DNA polymerase delta and proliferating cell nuclear antigen; RefSeq NM_015584
Date introduced: May 2, 2003

5: PDIP38 protein, mouse [Substance Name] Links
interacts with the p50 subunit of DNA polymerase delta and proliferating cell nuclear antigen; amino acid sequence in first source
Date introduced: May 2, 2003

6: p15(PAF) protein, human [Substance Name] Links
a 15-kDa protein identified as a proliferating cell nuclear antigen (PCNA) associated factor with increased expression in tumor tissues; RefSeq NM_014726

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Nuclear antigen with a role in DNA synthesis, DNA repair, and cell cycle progression. PCNA is required for the coordinated synthesis of both leading and lagging strands at the replication fork during DNA replication. PCNA expression correlates with the proliferation activity of several malignant and non-malignant cell types.
Year introduced: 1995

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☐ **1: Crystallography, X-Ray** Links

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Year introduced: 1994

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2: Indiani C, O'Donnell M. Related Articles, Links

The replication clamp-loading machine at work in the three domains of life.
Nat Rev Mol Cell Biol. 2006 Oct;7(10):751-61. Epub 2006 Sep 6. Review.
PMID: 16955075 [PubMed - indexed for MEDLINE]

3: Dore AS, Kilkenny ML, Jones SA, Oliver AW, Roe SM, Bell SD, Pearl LH. Related Articles, Links

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4: Nishida H, Matsumiya S, Tsuchiya D, Ishino Y, Morikawa K. Related Articles, Links

Stoichiometric complex formation by proliferating cell nuclear antigen (PCNA) and its interacting protein: purification and crystallization of the DNA polymerase and PCNA monomer mutant complex from Pyrococcus furiosus.
Acta Crystallograph Sect F Struct Biol Cryst Commun. 2006 Mar 1;62(Pt 3):253-6. Epub 2006 Feb 24.
PMID: 16511315 [PubMed - indexed for MEDLINE]

5: Kazmirski SL, Zhao Y, Bowman GD, O'donnell M, Kuriyan J. Related Articles, Links

Out-of-plane motions in open sliding clamps: molecular dynamics simulations of eukaryotic and archaeal proliferating cell nuclear antigen.
Proc Natl Acad Sci U S A. 2005 Sep 27;102(39):13801-6. Epub 2005 Sep 16.
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6: Kontopidis G, Wu SY, Zheleva DI, Taylor P, McInnes C, Lane DP, Fischer PM, Walkinshaw MD. Related Articles, Links

Structural and biochemical studies of human proliferating cell nuclear antigen complexes provide a rationale for cyclin association and inhibitor design.
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- Represent a subject concept & no synonyms needed
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- Increase search efficiency
- Get complete & reliable results

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Disadvantages of MeSH

http://www.nlm.nih.gov/mesh/

- Thesaurus terms may not cover all concepts, especially new concepts and jargon
- Not every concept in abstract or article can get thesaurus terms

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Hits per month: **2.6 Billion**
Searches per month: **10,536,000**
Article downloads per month: **64,330,000**
Newly-published issues online per day: **40**
Newly-published articles online per day: **580**
Articles published by *Journal of Biological Chemistry*, per hour: **1**
Millions of new-content alerts checked, per month: **18.6**
Millions of new-content alerts sent out, per month: **7.7**
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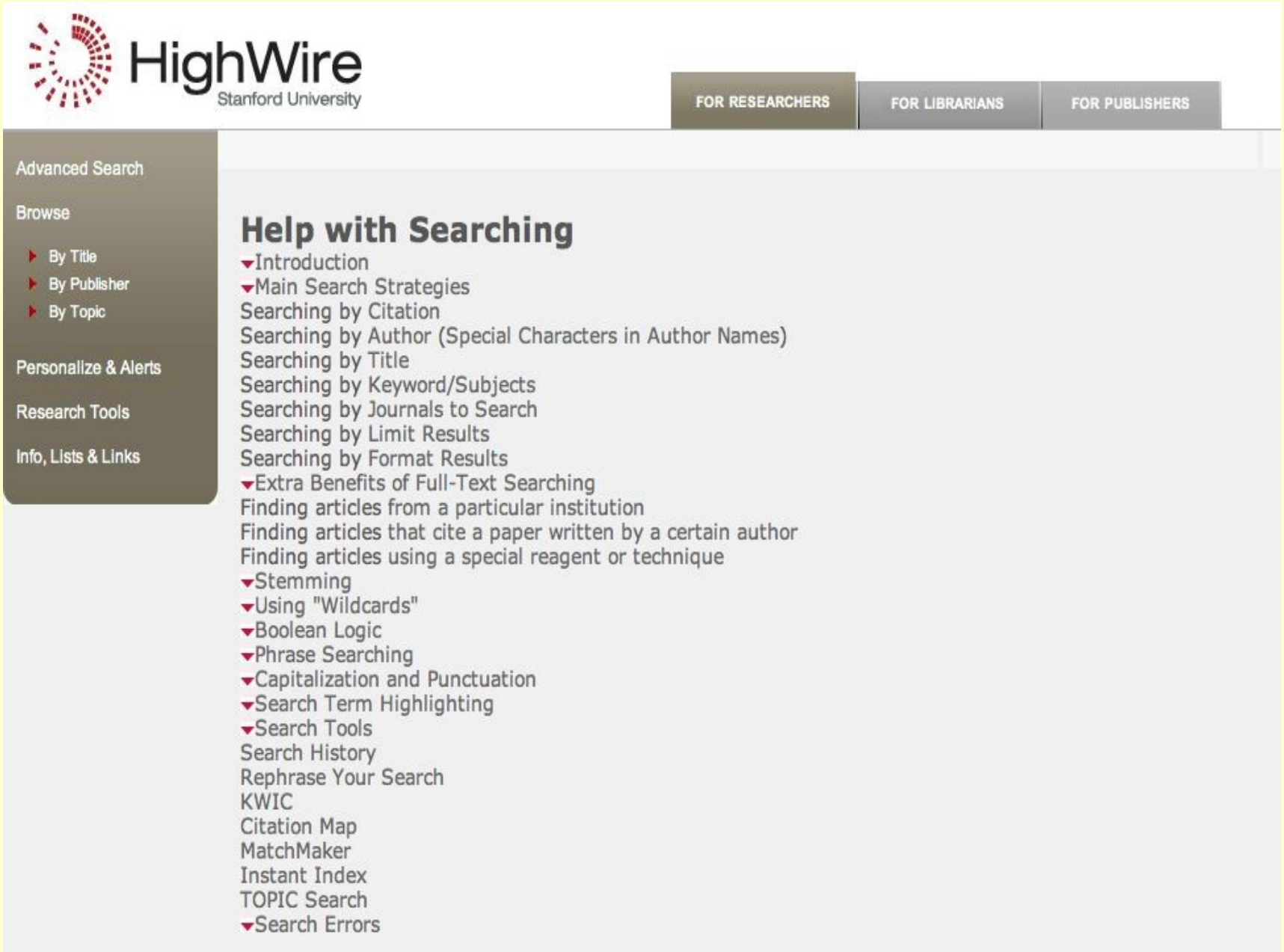

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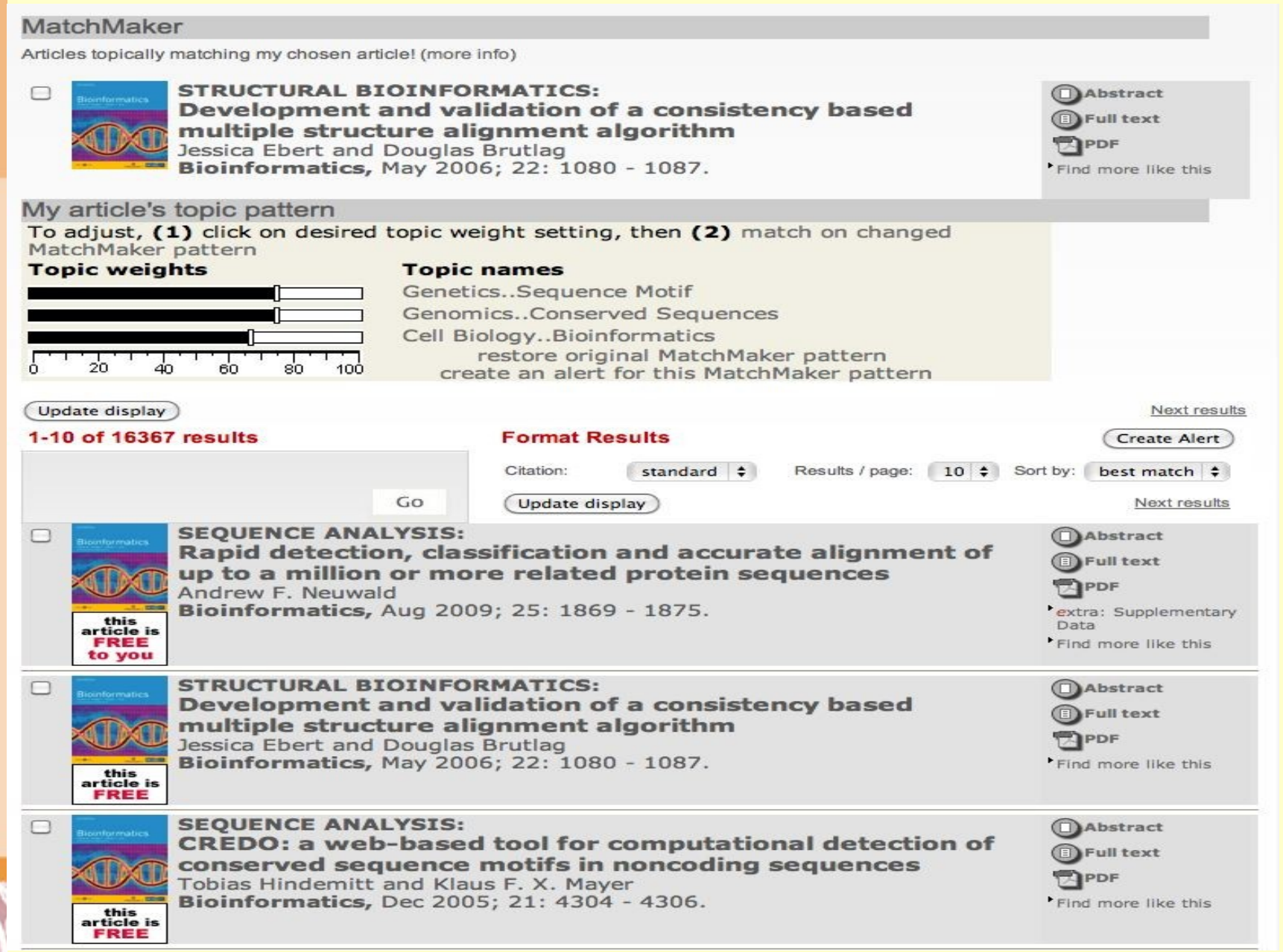

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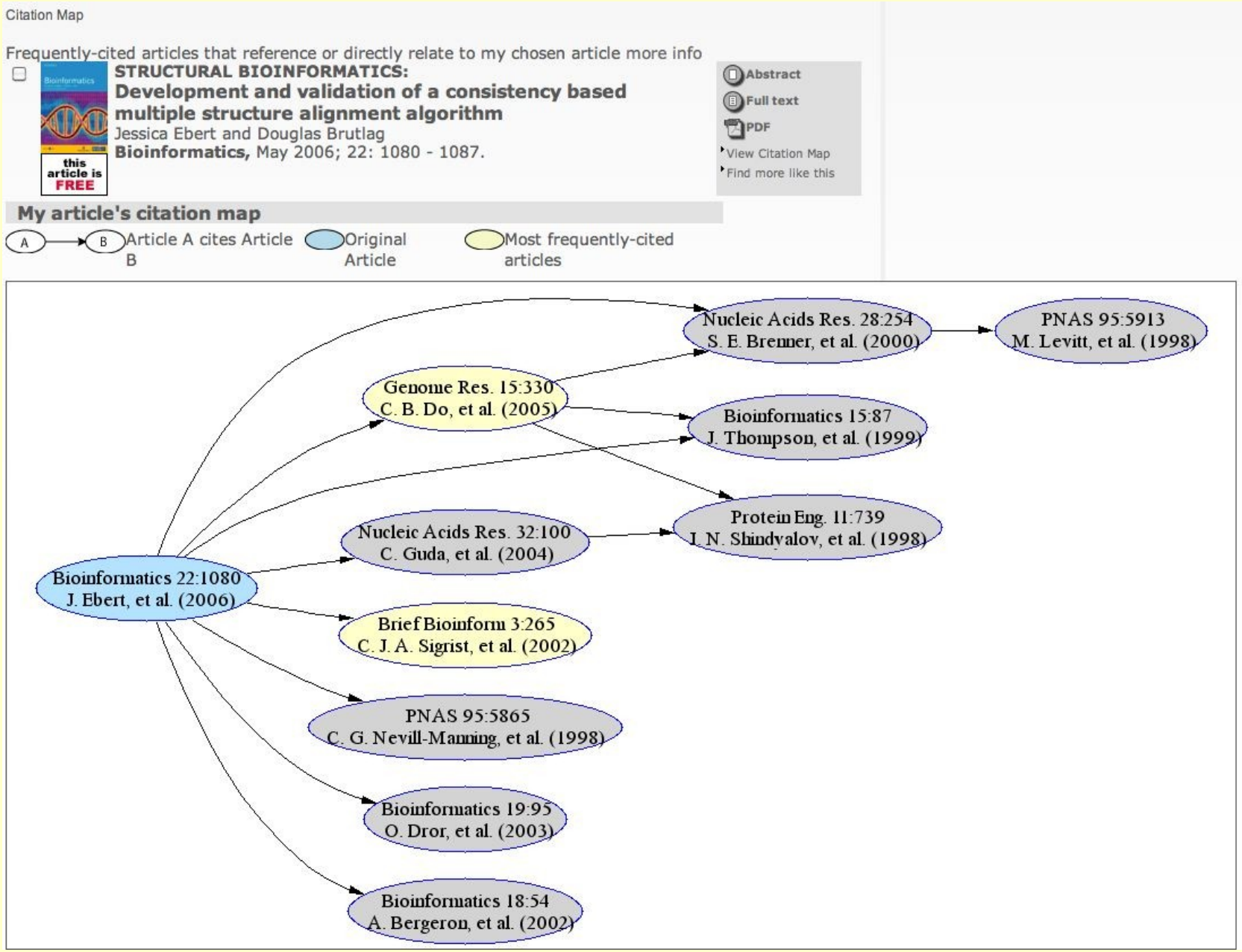

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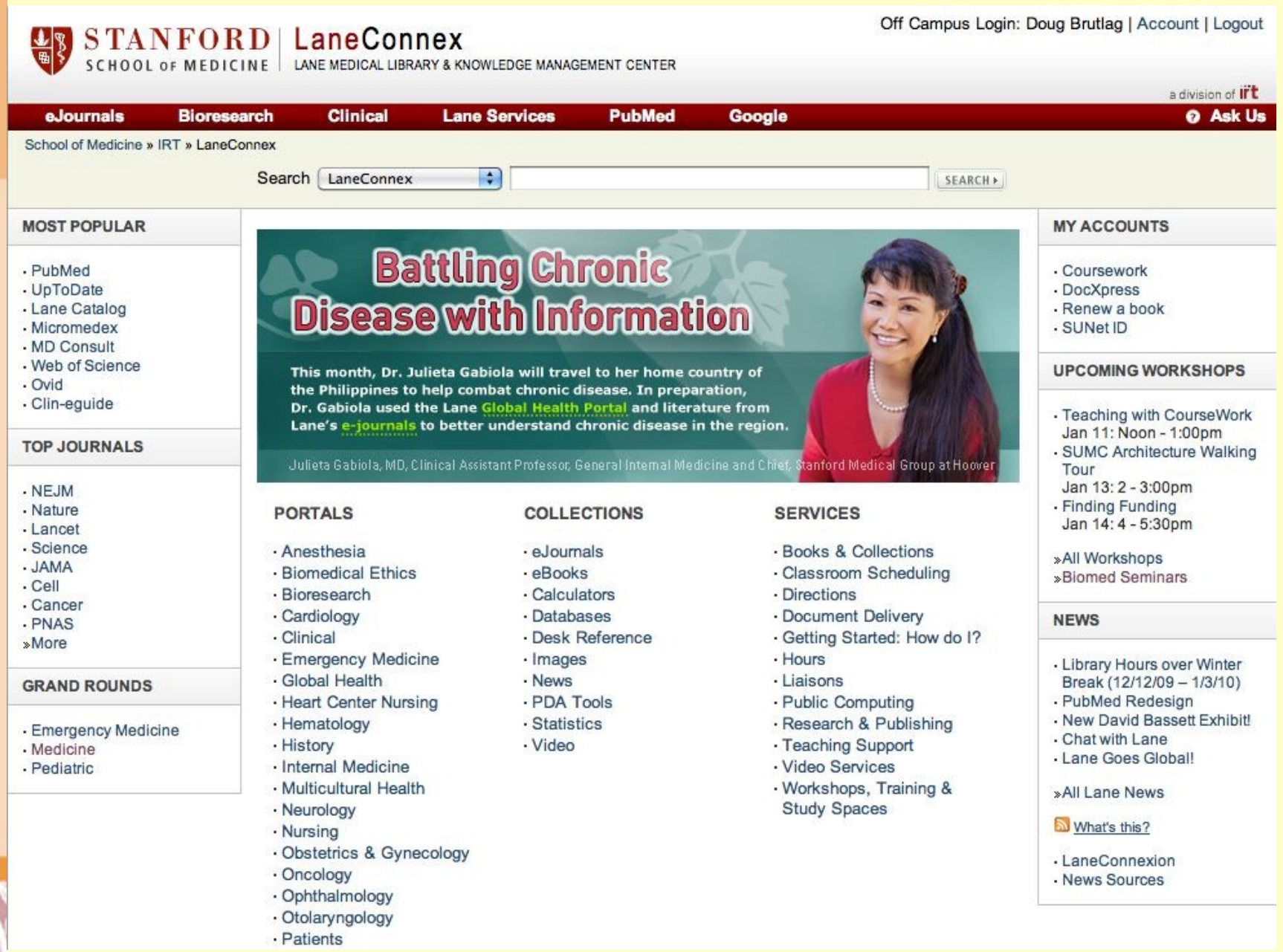

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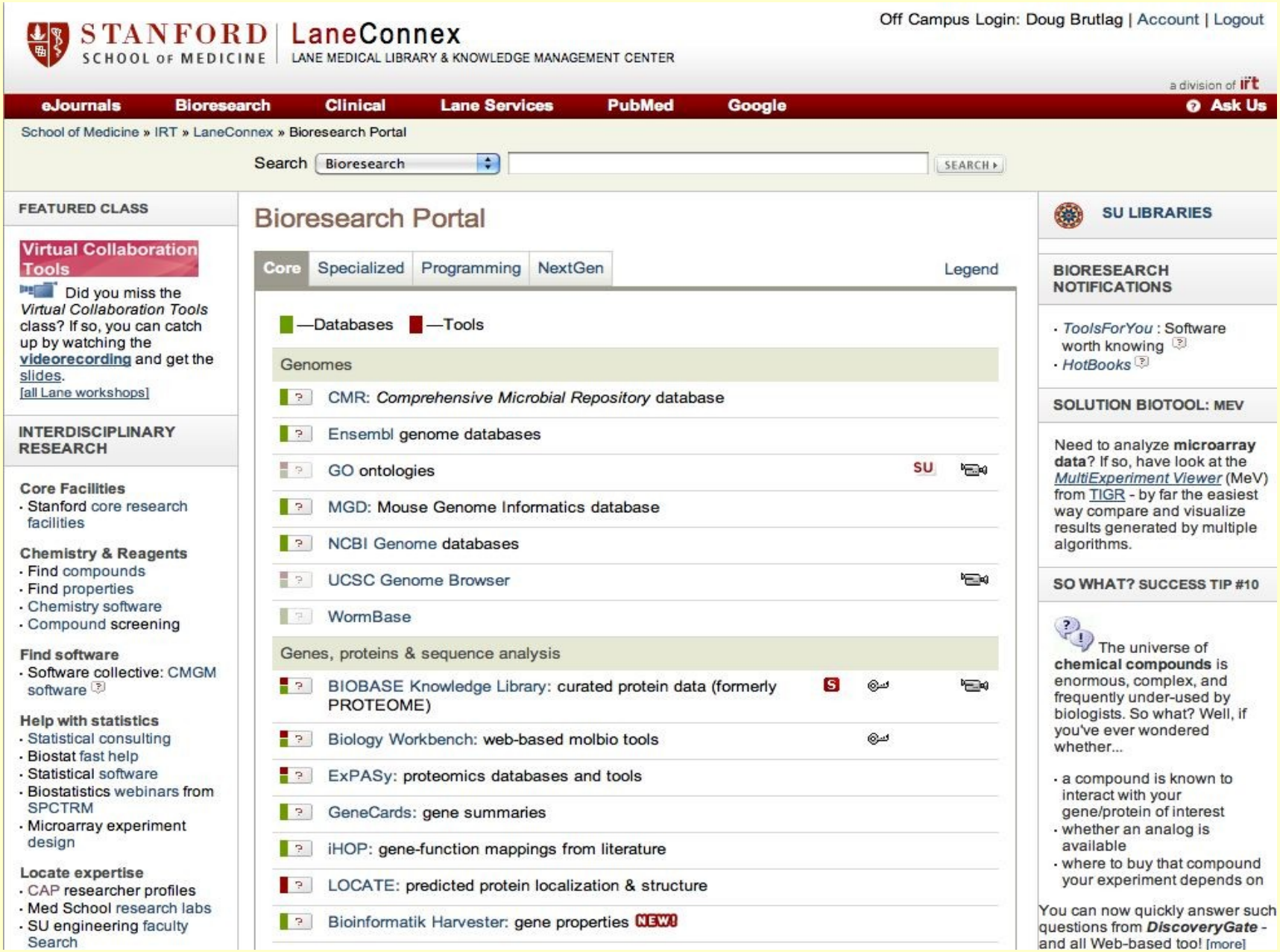

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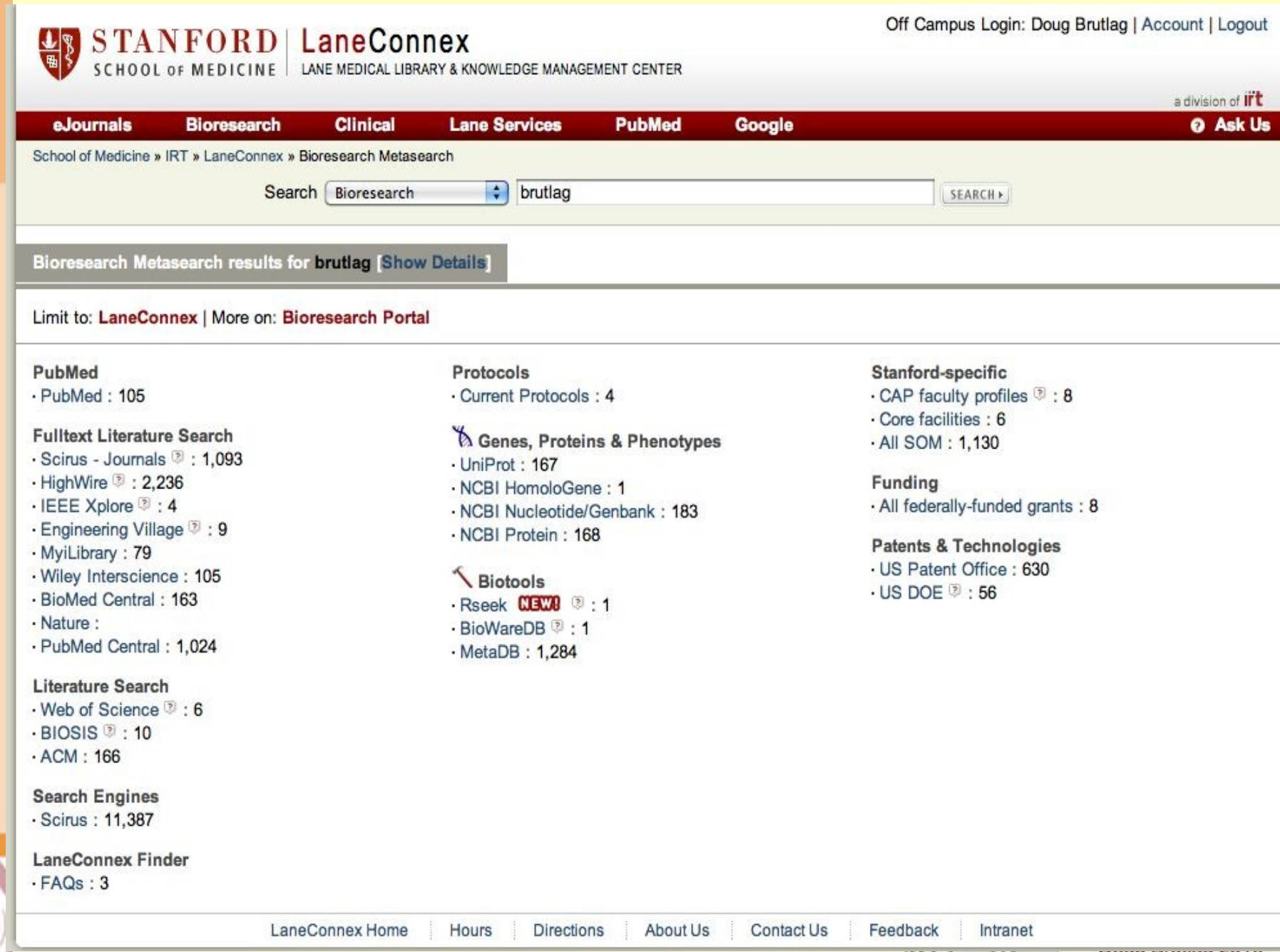

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