Replicating our Instructional Capacity: Developing Shared Workshops across Institutions

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THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

NC STATE
UNIVERSITY

Molecular Biology Searching, Briefly

What makes this such a challenging workshop
topic for librarians?

BLAST® » blastn suite

[Home](#) [Recent Results](#) [Saved Strategies](#) [Help](#)

Standard Nucleotide BLAST

blastn blastp blastx tblastn tblastx

Enter Query Sequence

BLASTN programs search nucleotide databases using a nucleotide query. [more...](#)

[Reset page](#) [Bookmark](#)

Enter accession number(s), gi(s), or FASTA sequence(s) [?](#)

[Clear](#)

Query subrange [?](#)

TCAGATAGGGGTCCTTGACCACCATCCTCCGTGAAATCAATATCCCGCACAAGAGTGCTACT
CTCCTCG
CTCCGGGCCCATACACTTGGGGTAGCTAAAGTGAAGTGTATCCGACATCTGTTCTACT
TCAGGGCC
ATAAAGCCCTAAATAGCCACACGTTCCCTTAAATAAGACATCACGATG

From

To

Or, upload file

no file selected [?](#)

Job Title

Enter a descriptive title for your BLAST search [?](#)

☐ Align two or more sequences [?](#)

Choose Search Set

Database

☒ Human genomic + transcript ☐ Mouse genomic + transcript ☐ Others (nr etc.):

Human genomic plus transcript (Human G+T) (176974 sequences) [?](#)

Exclude

Optional

☐ Models (XM/XP) ☐ Uncultured/environmental sample sequences

Limit to

Optional

☐ Sequences from type material

Entrez Query

Optional

[YouTube](#) [Create custom database](#)

Enter an Entrez query to limit search [?](#)

Program Selection

Optimize for

☒ Highly similar sequences (megablast)
☐ More dissimilar sequences (discontiguous megablast)
☐ Somewhat similar sequences (blastn)

Choose a BLAST algorithm [?](#)

BLAST

Search database Human G+T using Megablast (Optimize for highly similar sequences)

☒ Show results in a new window

[+ Algorithm parameters](#)

Note: Parameter values that differ from the default are highlighted in yellow and marked with ♦ sign

Our Communities Want Training On This!

Poultry Science

Environmental Science

Population Health & Pathobiology

Chemical & Biomolecular Engineering

Molecular Biomedical Sciences

Medicine

Microbiology

Biological Sciences

Marine Sciences

Biochemistry & Biophysics

Genomics

Pharmacy

Food Science

Public Health

Animal Science

Applied Statistics

Entomology

Dentistry

Why Recycling Old Content Doesn't Work

How many of you have experienced the following:

Our Collaborative Workshop Development Workflow

Video Conferencing

Cloud Storage

Open Repository with
Version Control

Benefits of this Approach

- Division of Labor
- Community of Practice
- Accountability
- Increased Reach
- Giving Back to the Broader Profession

Possible Areas for Collaborative Workshops

Research Impact & Bibliometrics

Citation Management

Open Scholarship & Authors' Rights

Open Data Repositories (GitHub, OSF)

Open Education

Science Communication

GIS

Data Management Planning

Online Scholarly Identity (ORCID, etc.)

Digital Media Production

Coding & Programming

Informed Consent, IRB/IACUC

Data Visualization (Tableau, Excel)

Makerspaces & Design Thinking

Check Out our Workshops!

<https://osf.io/a6x2q/>

Questions?

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