

# 2020 Annual BLAST User Survey

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Q1 Which professional categories best describes you? (Please select one.) \*

- Bioinformatics professional (1)
  - Educator (2)
  - Healthcare professional (3)
  - Librarian / Information Specialist (4)
  - Life Science Researcher (5)
  - Student (6)
  - Technician (7)
  - Computer Scientist / Software Developer (8)
  - Other (Please specify below.) (9)
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Q2 Which of the following categories best describes your organization? \*

- College or University (1)
  - Commercial / Industry (2)
  - Non-profit Organization (3)
  - Research Institute (4)
  - Government (5)
  - Hospital/health organization (6)
  - Other (Please specify below.) (7)
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Q3 How frequently do you use each of the following services on the BLAST web service (<https://blast.ncbi.nlm.nih.gov/>)?

	Daily (1)	Weekly (2)	Monthly (3)	Infrequently (4)	Never (5)
Nucleotide BLAST (blastn) (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Protein BLAST (blastp) (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Translated BLAST (blastx, tblastn, tblastx) (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Align two or more sequences (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
PrimerBLAST (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
IgBLAST (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4 Why do you use BLAST? (Please select all that apply.)

- Identify unknown mRNA transcripts (1)
  - Identify unknown proteins (2)
  - Annotate novel genomic sequences (3)
  - Search for homologs in other organisms (4)
  - Identify organisms (taxa) in environmental / metagenomic samples (5)
  - Screen for contamination (6)
  - Designing/Screening Primers (7)
  - Verify the identity of the source organism (8)
  - Verify the corresponding gene for a query sequence (9)
  - Map reads to a genome (10)
  - Education/Instruction (11)
  - Other (Please specify below.) (12)
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Q5 Do you run BLAST searches for others in your organization, for example you do this as a service for others?

- Yes (1)
  - No (2)
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Q6 How frequently do you search with multiple of sequences?

- Daily (1)
  - Weekly (2)
  - Monthly (3)
  - Infrequently (4)
  - Never (5)
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Q7 Which BLAST services do you use? (Please select all that apply.)

- Not applicable (I do not use any of these services) (1)
  - Use the BLAST website and upload files and/or paste one or more sequences in the sequence field (2)
  - Use the BLAST+ applications on the command line remote to submit BLAST searches to NCBI (3)
  - Use the BLAST+ applications on the command line with my own/custom databases (4)
  - Use the BLAST+ applications on the command line with BLAST databases/FASTA provided by NCBI (5)
  - Submit BLAST searches using scripts that access the BLAST URL API (6)
  - Use NCBI BLAST+ docker image from dockerhub (7)
  - Use BLAST on the cloud. (Please specify provider below.) (8)  
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  - Use BLAST through a third-party software. (Please specify name of software below.) (9) \_\_\_\_\_
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Q8 How frequently do you use the standalone BLAST+ (command line) applications? \*

- Daily (1)
- Weekly (2)
- Monthly (3)
- Infrequently (4)
- Never (5)

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Following questions with display logic will only appear if anything but “Never” is selected in Q8

*Display This Question:*

- If How frequently do you use the standalone BLAST+ (command line) applications? \* = Daily*
- Or How frequently do you use the standalone BLAST+ (command line) applications? \* = Weekly*
- Or How frequently do you use the standalone BLAST+ (command line) applications? \* = Monthly*
- Or How frequently do you use the standalone BLAST+ (command line) applications? \* = Infrequently*

Q9 Why do you use BLAST+ versus BLAST web service?

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*Display This Question:*

- If How frequently do you use the standalone BLAST+ (command line) applications? \* = Daily*
- Or How frequently do you use the standalone BLAST+ (command line) applications? \* = Weekly*
- Or How frequently do you use the standalone BLAST+ (command line) applications? \* = Monthly*
- Or How frequently do you use the standalone BLAST+ (command line) applications? \* = Infrequently*

Q10 Why do you use BLAST+ Docker versus BLAST+?

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*Display This Question:*

*If How frequently do you use the standalone BLAST+ (command line) applications? \* = Daily*

*Or How frequently do you use the standalone BLAST+ (command line) applications? \* = Weekly*

*Or How frequently do you use the standalone BLAST+ (command line) applications? \* = Monthly*

*Or How frequently do you use the standalone BLAST+ (command line) applications? \* = Infrequently*

Q11 Please indicate how strongly you agree or disagree with the following statements about the standalone BLAST+ applications.

	Strongly agree (1)	Agree (2)	Neither agree nor disagree (3)	Disagree (4)	Strongly disagree (5)	N/A (6)
I am satisfied with the performance of the BLAST+ applications (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I frequently look at the databases available to see if there is a better one for me to use (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Available formatting options work well for me (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have an automated task that downloads the latest databases (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



*Display This Question:*

*If How frequently do you use the standalone BLAST+ (command line) applications? \* = Daily*

*Or How frequently do you use the standalone BLAST+ (command line) applications? \* = Weekly*

*Or How frequently do you use the standalone BLAST+ (command line) applications? \* = Monthly*

*Or How frequently do you use the standalone BLAST+ (command line) applications? \* = Infrequently*

Q12 If there was one thing you could change about BLAST+, what would it be?

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*Display This Question:*

*If How frequently do you use the standalone BLAST+ (command line) applications? \* = Daily*

*Or How frequently do you use the standalone BLAST+ (command line) applications? \* = Weekly*

*Or How frequently do you use the standalone BLAST+ (command line) applications? \* = Monthly*

*Or How frequently do you use the standalone BLAST+ (command line) applications? \* = Infrequently*

Q13 Do you use BLAST+ as part of an automated pipeline?

Yes (1)

No (2)

*Display This Question:*

*If Do you use BLAST+ as part of an automated pipeline? = Yes*

Q14 When running BLAST+ as part of an automated pipeline what databases do you use? (Please select all that apply.)

- Pre-formatted BLAST database (nr, nt, others from BLAST FTP site) (1)
- Pre-formatted BLAST database (nr, nt, others from cloud service provider – GCP, AWS) (2)
- Other NCBI databases (3)
- Your own databases (4)

*Display This Question:*

*If Do you use BLAST+ as part of an automated pipeline? = Yes*

Q15 When using this pipeline which of the following do you use? (Please select all that apply.)

- Python (1)
  - Amazon Web Service (2)
  - Google Cloud Platform (3)
  - Bash (4)
  - PERL (5)
  - Common Workflow Language (CWL) (6)
  - Docker (7)
  - GitHub (8)
  - NCBI EDirect or E-Utilities (9)
  - The BLAST URL API (10)
  - Other (Please specify below.) (11)
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*Display This Question:*

*If Do you use BLAST+ as part of an automated pipeline? = Yes*

Q16 What features, or changes would you like to make to BLAST+ so it better supports your pipeline needs?

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Q17 Please indicate how strongly you agree or disagree with the following statements about the BLAST web service.

	Strongly agree (1)	Agree (2)	Neither agree nor disagree (3)	Disagree (4)	Strongly disagree (5)	N/A (6)
Knowing which BLAST databases to choose is easy. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Finding BLAST databases for a specific organism is easy. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Finding BLAST databases for a specific genome is easy (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BLAST results are returned quickly. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BLAST results are easy to read and understand. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Downloading my results is easy and provides what I need. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Descriptions table has a clear and understandable layout. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Descriptions table has all the fields I need. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Q18 Please provide any specific fields or links you would add to the Descriptions table.

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Q19 Would you be interested in a BLAST web service where you enter your task, such as “Search for homologs in other organisms”; then enter your sequence and then hit Go. BLAST will then select the appropriate database and present your results?

- Yes (1)
- No (2)

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Q31 Comments or feedback about the web service above.

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Q20 Would you be interested in a database clustered by % identity, derived from nt or nr which would significantly reduce redundancy and improve search times?

Yes (1)

No (2)

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Q32 Comments or feedback about the database above.

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Q23 Please provide any additional type of formats/images that you would want to save/print.

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Q24 On a scale from 0-10, how likely are you to recommend BLAST to a friend or colleague? \*

- 0 (0)
  - 1 (1)
  - 2 (2)
  - 3 (3)
  - 4 (4)
  - 5 (5)
  - 6 (6)
  - 7 (7)
  - 8 (8)
  - 9 (9)
  - 10 (10)
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Q25 If there was one thing you could change about the BLAST web service, what would it be?

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Q26 If you would like to provide more feedback, please contact us at [blast-help@ncbi.nlm.nih.gov](mailto:blast-help@ncbi.nlm.nih.gov)