

# Non-profit, journal-agnostic servers

**bioRxiv**

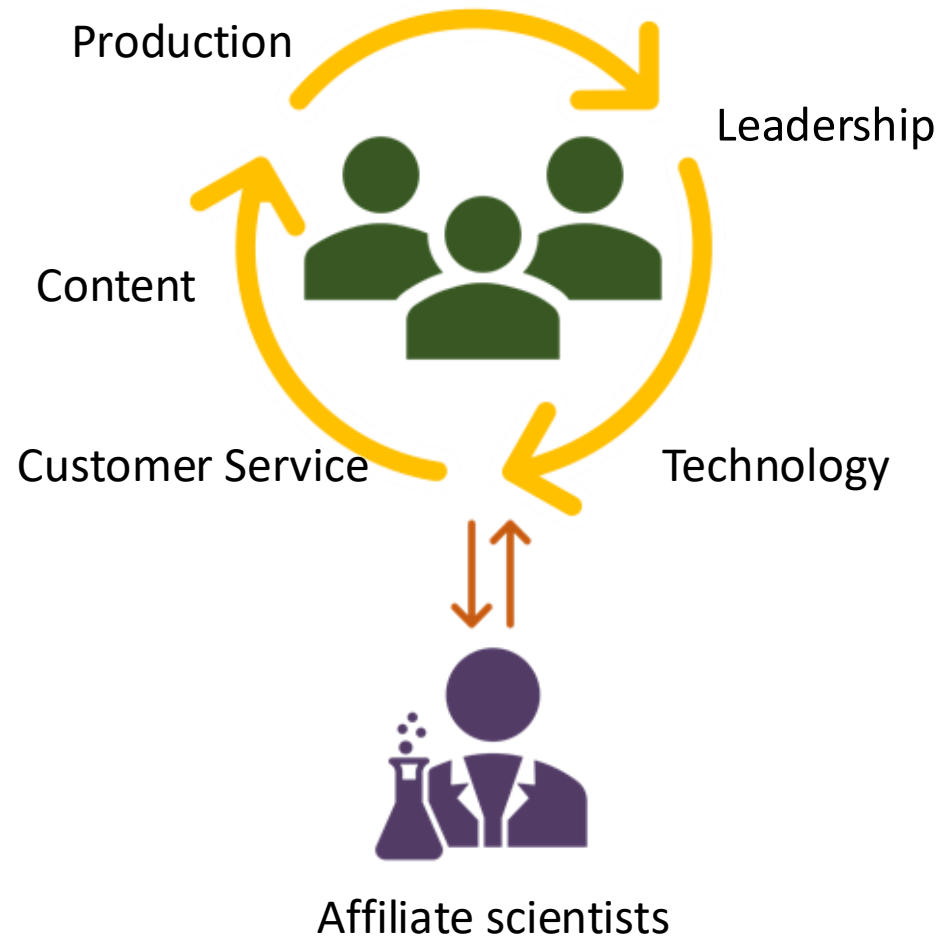
THE PREPRINT SERVER FOR BIOLOGY

Launched Nov 2013

Life Sciences preprints

200 mss/day  
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Audience: Basic Scientists



**medRxiv**

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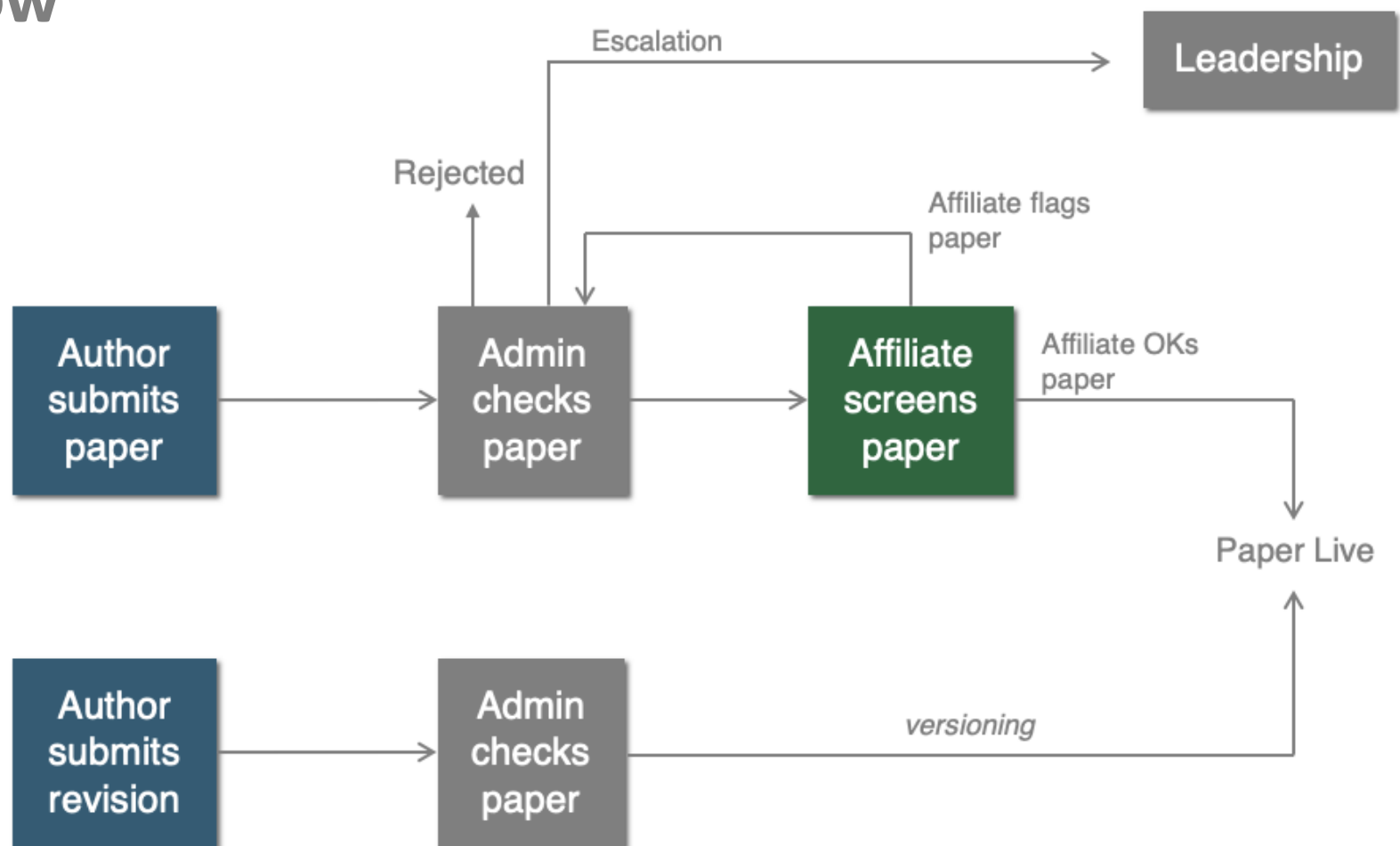
60 - 100 mss/day  
~2000mss/mo)

Audience: Biomedical  
researchers & clinicians

## The Numbers

- >400K preprints (bioRxiv + medRxiv)
- 25-30% revised
- ~10M views/month (bioRxiv + medRxiv)
- >80% of papers published in journals

# Workflow



# Features

The image shows a screenshot of a bioRxiv preprint page for the article "Evidence for intraflagellar transport in butterfly spermatocyte cilia". Red arrows point from external labels to specific features on the page:

- Article type**: Points to the "New Results" label at the top left of the article content.
- DOI**: Points to the DOI link: <https://doi.org/10.1101/2022.12.22.521690>.
- VOR**: Points to the "Abstract" tab in the article navigation bar.
- HTML**: Points to the "Full Text" tab in the article navigation bar.
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# Trust signals: reviews

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### Intraflagellar transport protein IFT172 contains a C-terminal ubiquitin-binding U-box-like domain involved in ciliary signaling

Posted November 05, 2024.

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Nevin K. Zacharia, Stefanie Kuhns, Niels Boegholm, Anni Christensen, Jiaolong Wang, Narcis A. Petriman, Anna Lorentzen, Jindriska L. Fialova, Lucie Menguy, Sophie Saunier, Soren T. Christensen, Jens S. Andersen, Sagar Bhogaraju, Esben Lorentzen

doi: <https://doi.org/10.1101/2024.11.05.620812>

This is a preprint. It has not been certified by a journal but **peer reviews** are available. [what does this mean?]

**Subject Area**  
Biochemistry

**Abstract** Full Text Info/History Metrics [Preview PDF](#)

**Abstract**

Intraflagellar transport (IFT) is a fundamental process driving ciliogenesis in most eukaryotic organisms. IFT172, the largest protein of the IFT complex, plays a crucial role in cilium formation and is associated with several disease variants causing ciliopathies. While IFT172 is tethered to the IFT-B complex via its N-terminal domains, the function of its C-terminal domains has remained elusive. Here, we reveal that the C-terminal part of IFT172 interacts with IFT-A complex subunits, providing a molecular basis for the role of IFT172 in bridging IFT-A and IFT-B complexes. We determine the crystal structure of the C-terminal part of IFT172,

**Reviews and Context**

- 0 Comment
- 5 TRIP Peer Reviews
- 0 Community Reviews
- 2 Automated Services
- 0 Blogs/Media
- 0 Author Videos

**Abstract**

Intraflagellar transport (IFT) is a fundamental process driving ciliogenesis in most eukaryotic organisms. IFT172, the largest protein of the IFT complex, plays a crucial role in cilium formation and is associated with several disease variants causing ciliopathies. While IFT172 is tethered to the IFT-B complex via its N-terminal domains, the function of its C-terminal domains has remained elusive. Here, we reveal that the C-terminal part of IFT172 interacts with IFT-A complex subunits, providing a molecular basis for the role of IFT172 in bridging IFT-A and IFT-B complexes. We determine the crystal structure of the C-terminal part of IFT172, uncovering a conserved U-box-like domain often found in E3 ubiquitin ligases. This domain exhibits ubiquitin-binding properties and auto-ubiquitination activity. The IFT172 auto-ubiquitination activity is reduced in

**Reviews and Context**

Comments <sup>5</sup> [TRIP](#) <sup>5</sup> Community <sup>0</sup> Automated <sup>2</sup> Blogs/Media <sup>0</sup>

Video <sup>0</sup>

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eLife

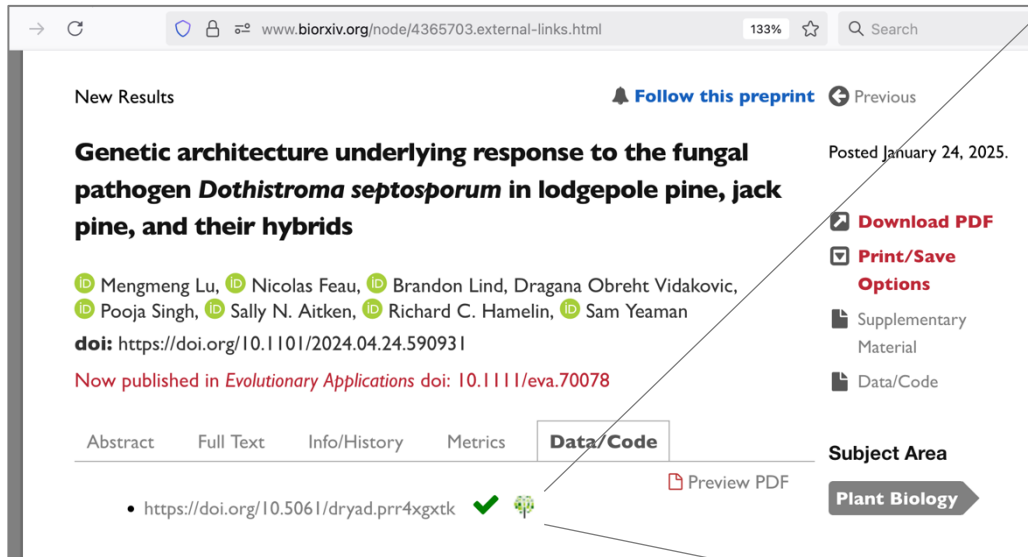
**eLife Assessment**

This important work advances our understanding of intraflagellar transport, ciliogenesis, and ciliary-based signaling, by identifying the interactions of IFT172 with IFT-A components, ubiquitin-binding, and ubiquitination, mediated by IFT172 C-terminus and its role in ciliogenesis and ciliary signaling. The results of the structural analysis of the IFT172 C-terminus and the evidence for the interaction between IFT172 and IFT-A components are convincing. However, the analysis of ubiquitin-binding and ubiquitination mediated by IFT172 is incomplete.

**Reviewer #1 (Public review):**  
Summary:  
Zacharia and colleagues investigate the role of the C-terminus of IFT172 (IFT172c), a component of the IFT-B subcomplex. IFT172 is required for proper ciliary trafficking.

**Reviewer #2 (Public review):**  
Summary:

# Trust signals: badges



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## Genetic architecture underlying response to the fungal pathogen *Dothistroma septosporum* in lodgepole pine, jack pine, and their hybrids

Posted January 24, 2025.

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Supplementary Material  
Data/Code



Mengmeng Lu, Nicolas Feau, Brandon Lind, Dragana Obreht Vidakovic, Pooja Singh, Sally N. Aitken, Richard C. Hamelin, Sam Yeaman

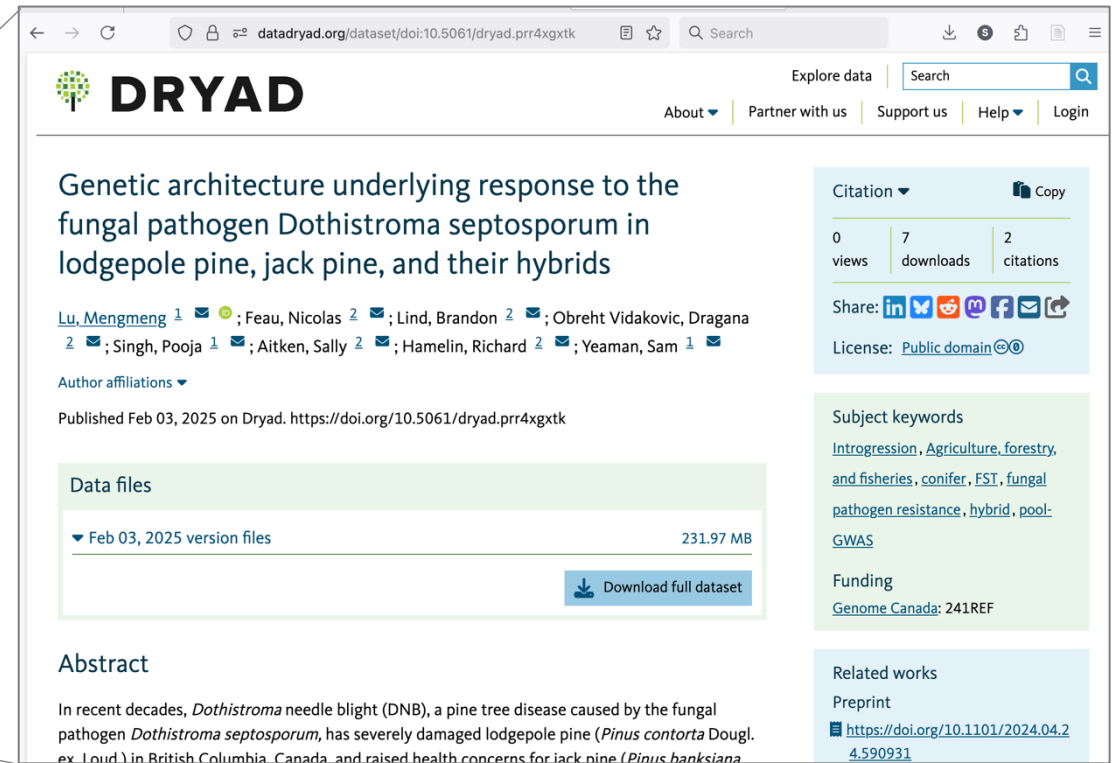
doi: <https://doi.org/10.1101/2024.04.24.590931>

Now published in *Evolutionary Applications* doi: [10.1111/eva.70078](https://doi.org/10.1111/eva.70078)

Abstract Full Text Info/History Metrics **Data/Code** Preview PDF

Subject Area **Plant Biology**

• <https://doi.org/10.5061/dryad.prr4xgxtk>  











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### Genetic architecture underlying response to the fungal pathogen *Dothistroma septosporum* in lodgepole pine, jack pine, and their hybrids

[Lu, Mengmeng](#) <sup>1</sup>  ; [Feau, Nicolas](#) <sup>2</sup> ; [Lind, Brandon](#) <sup>2</sup> ; [Obreht Vidakovic, Dragana](#) <sup>2</sup> ; [Singh, Pooja](#) <sup>1</sup> ; [Aitken, Sally](#) <sup>2</sup> ; [Hamelin, Richard](#) <sup>2</sup> ; [Yeaman, Sam](#) <sup>1</sup> 

Author affiliations

Published Feb 03, 2025 on Dryad. <https://doi.org/10.5061/dryad.prr4xgxtk>

#### Data files


Feb 03, 2025 version files 231.97 MB

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#### Abstract



In recent decades, *Dothistroma* needle blight (DNB), a pine tree disease caused by the fungal pathogen *Dothistroma septosporum*, has severely damaged lodgepole pine (*Pinus contorta* Dougl. ex Loud.) in British Columbia, Canada, and raised health concerns for jack pine (*Pinus banksiana*

#### Citation



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#### Subject keywords

[Introgression](#), [Agriculture](#), [forestry](#), [and fisheries](#), [conifer](#), [EST](#), [fungal pathogen resistance](#), [hybrid](#), [pool-GWAS](#)

#### Funding

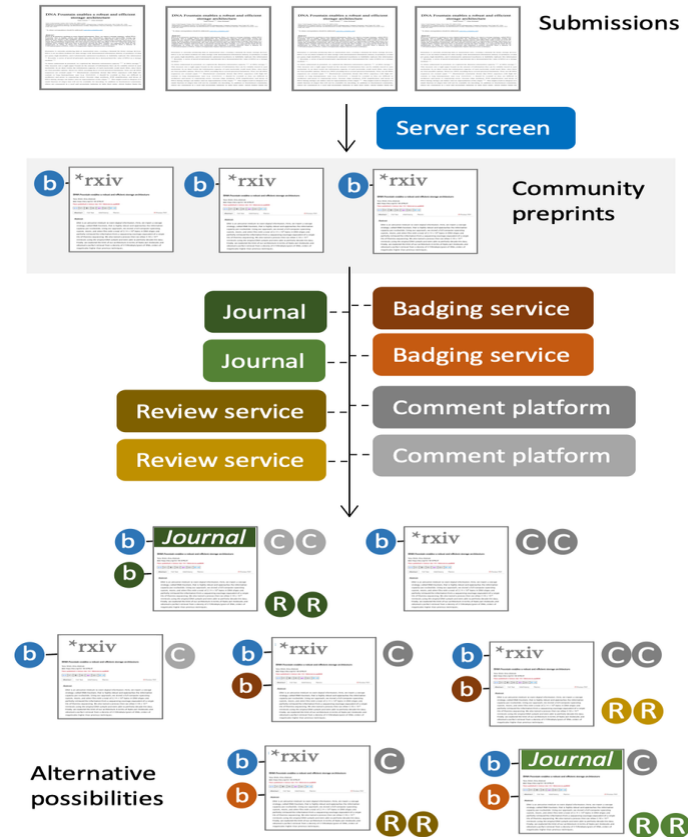
[Genome Canada: 241REF](#)

#### Related works

Preprint <https://doi.org/10.1101/2024.04.24.590931>

# Creating an open ecosystem

## a) Open ecosystem



“We now have the opportunity to adopt a new approach with better trust signals, in which judgments of an article’s merits are not made at a single point in time”

Sever (2023) *PLOS Biol* doi: 10.1371/journal.pbio.3002234