

## Novo makes a gene editing move



[Madeleine Armstrong](#)



**Today's collaboration with Life Edit is a return to the Danish group's familiar small, early-stage deal strategy.**

After a couple of recent big acquisitions, Novo Nordisk has gone back to what it knows best: collaborations over intriguing but early technology. Today's partner is Life Edit Therapeutics, and the technology is gene editing – a hot sector that Novo has previously bet against.

As before Novo is looking beyond the big-name Crispr players: Life Edit, an Elevatebio subsidiary, is probably best known for teaming up with Moderna in February. When asked what had attracted Novo to its new collaborator, a spokesperson pointed to Life Edit's base editing capabilities and a "broad and diverse library of nucleases".

This, along with a range of Pam motifs – short sequences that are important for targeting the gene-editing machinery – could improve specificity and reduce the risk of off-target effects, a big worry, particularly with in vivo editing.

Base editing, which involves making single base changes in the genome, also has the advantage of avoiding the double-stranded breaks that have caused consternation with conventional Crispr nuclease-based editing. But, given the early stage of its technology, privately-held Life Edit has a long way to go to prove its bold claim of being able to make "any edit anywhere".

Life Edit is working on both ex vivo and in vivo editing, but Novo is not saying whether it has a preference for either, telling *Evaluate Vantage* only that: "We would aim to develop therapies that are either first in class or best in class."

The Danish group is also not disclosing the up-front fee, but costs could add up, with Novo on the hook for milestones of \$250-335m for each of seven development programmes covered by the deal. Novo is also making an undisclosed equity investment in Life Edit's parent Elevatebio as part of that company's \$401m series D financing.

Neither are there details about what diseases Novo and Life Edit will be working on, except that they are in the rare and cardiometabolic sphere. The group has recently been making [a push into rare diseases](#), and last September [bought the sickle cell player Forma](#). That move looked like a gamble against gene editing, as did the [previous purchase of Prothena's PRX004 in transthyretin amyloidosis](#), where the Crispr specialist Intellia is active.

However, the Life Edit deal is not Novo's first foray into gene editing: [in 2019 it signed up Bluebird](#) for in vivo editing work in haemophilia and other genetic diseases. That research is now partnered with the Bluebird spinout 2seventy Bio, to which [Novo recently paid a \\$15m milestone](#) relating to preclinical proof-of-concept data.

[Click here](#) to download Evaluate Vantage's recent report on gene editing, including an interview with Life Edit.

### Selected recent deals by Novo Nordisk

Target/partner	Deal type	Area	Financials	Date announced
Life Edit	Collaboration	Gene editing	Undisclosed up front; \$250-335m milestones per project	May 2023
Aspect Biosystems	Collaboration	Bioprinted tissue therapeutics for diabetes/obesity	\$75m up front; up to \$650m milestones	Apr 2023
Fujifilm Cellular Dynamics	Licence	iPSC-derived cell therapies	Undisclosed	Jan 2023
Forma	Acquisition	Sickle cell disease	\$1.1bn up front	Sep 2022
Octagon	Collaboration	Inflammatory disease	Undisclosed	Sep 2022
Ventus	Licence	NLRP3 inhibitors in cardiometabolic diseases	\$70m up front; up to \$633m milestones	Sep 2022
Eracal	Collaboration	Food intake regulation	Undisclosed	Jan 2022
Dicerna	Acquisition	RNAi	\$3.3bn up front	Nov 2021
Lumen	Collaboration	Oral biologics for cardiometabolic disease	Undisclosed	Jul 2021
Prothena's PRX004	Product acquisition	Transthyretin amyloidosis	\$100m up front/near-term milestones; up to \$1.2bn total	Jul 2021
Heartseed	Collaboration	Stem cell-based therapy for heart failure	\$55m up front/near-term milestones; up to \$598m total	Jun 2021

Source: Evaluate Pharma.

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