

Color palette, hardness of ornamental flowers expanded by biotechnology

Roses are red and violets are blue, says the old romantic poem. But nowadays, roses can be blue, too, thanks to modern biotechnology.

Blue pigments known as delphinidins are not naturally found in certain flowers like roses, carnations, lilies and orchids. So scientists isolated the gene responsible for delphinidin production in the petunia and transferred it to the carnation for ornamental purposes. The result? A beautiful array of naturally produced bluish colors from mauve to violet...

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[T]he blue carnation was the first step to creating a blue rose as carnation genes are much easier to work with than those of roses...

...It took these [three genes](#) and 20 years of work to develop the blue rose!

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Biotechnology is also being applied to [other ornamental flowers](#).... Beyond flower color modifications, traits being worked on include insect resistance, abiotic stress resistance like frost tolerance, pollination control and altered plant structures.

With these biotech innovations, there will more and more ways to say "I love you" with flowers.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis. Read full, original post: [Violets are blue and roses can be too](#)