Understanding Drug Farm and DF-003

A Patient and Caregivers Guide to Frequently Asked Questions

What is ROSAH syndrome?

ROSAH syndrome is a rare inherited autoinflammatory disease caused by disease-causing variants in the ALPK1 gene. The condition can affect the eyes, immune system, spleen, nervous system, and other organs.

- **R**etinal dystrophy
- **O**ptic nerve edema
- **S**plenomegaly
- **A**nhidrosis
- **H**eadache

What are signs and symptoms of ROSAH syndrome?

Symptoms of ROSAH syndrome usually begin in childhood or early adulthood and can vary from person to person. The most common features include:

- **Eye involvement:** retinal dystrophy (progressive damage to the light-sensing retina) and chronic optic nerve edema (swelling of the optic nerve), which together can lead to slowly progressive vision loss.
- **Splenomegaly:** enlargement of the spleen, sometimes accompanied by pancytopenia (low counts of red blood cells, white blood cells, and platelets).
- **Anhidrosis:** reduced or absent sweating.
- **Headache:** migraine-type headaches.

Other reported features can include recurrent fevers and hives (urticaria). Trust your instincts and take action, if you or a family member is experiencing these symptoms.

Why did it take so long to receive a diagnosis?

Because ROSAH syndrome is extremely rare, it may initially resemble more common eye, neurologic, inflammatory, or blood disorders. Many patients see several specialists before genetic testing confirms the diagnosis.

What causes ROSAH syndrome, and is it inherited?

Yes. ROSAH syndrome is generally inherited in an autosomal dominant pattern, meaning that one altered copy of the ALPK1 gene may be sufficient to cause disease. In some cases, the genetic change may occur without a family history.

What is genetic testing, and why is testing important?

Genetic testing can help confirm a diagnosis, identify ALPK1 variants, guide medical management to ensure a tailored treatment plan, and inform discussions about family members and research opportunities.

An earlier diagnosis can help patients by allowing families to access specialized care, manage symptoms sooner, and plan for needed support and resources. For those with advanced disease, palliative care to focus on comfort may be an option.

Family members may wish to discuss genetic counseling and testing with their healthcare providers. The decision to pursue testing should be based on personal and family medical history and should be discussed with qualified healthcare professionals.

As a Caregiver, how should explain ROSAH Syndrome to my child?

- Give clear, factual and concrete explanations, and acknowledge social challenges.
- Focus on how things affect them personally.
- Expect frustration and fairness questions like, “Why is this happening to me?”

Being a Caregiver can be emotionally demanding, coordinating with specialists can be frustrating. *Ask for Help, Seek Support, Connect with Others, and Stay Informed*

Are there any approved treatments for ROSAH syndrome?

Currently, there are no approved disease-modifying therapies specifically indicated for ROSAH syndrome. Treatment typically focuses on coordinated support from different healthcare specialists, monitoring symptoms and providing supportive care.

What specialists should I expect to be involved in my care?

ROSAH syndrome may affect multiple organ systems. Care often involves a team that may include ophthalmologists, retina specialists, rheumatologists, immunologists, neurologists, hematologists, and genetic counselors.

What is Drug Farm’s DF-003?

DF-003 is an investigational oral medicine being developed to inhibit ALPK1 activity, the genetic driver of ROSAH syndrome. Researchers are evaluating whether targeting ALPK1 may help address the underlying inflammatory pathways involved in the disease.

How does DF-003 work?

ROSAH syndrome is caused by disease-causing changes in the **ALPK1 gene**. These changes can cause ALPK1 signaling to remain overactive, leading to chronic inflammation throughout the body. This inflammation is believed to contribute to many features of ROSAH syndrome, including eye disease, headaches, splenomegaly, and anhidrosis.

DF-003 is an investigational medicine designed to inhibit the activity of ALPK1. By reducing excessive ALPK1 signaling, researchers hope DF-003 may help address the underlying inflammatory processes that drive ROSAH syndrome.

Why do researchers believe ALPK1 is important in ROSAH syndrome?

Researchers have identified disease-causing ALPK1 variants as the genetic cause of ROSAH syndrome. The ALPK1 protein plays a role in the body's innate immune system and inflammatory signaling pathways. When ALPK1

becomes overactive, inflammatory signals can remain turned on longer than intended.

Because ALPK1 is believed to be a key driver of disease activity, researchers are studying whether inhibiting ALPK1 may help reduce inflammation associated with ROSAH syndrome.

Can you explain DF-003 in simple terms?

Think of ALPK1 as a light switch that helps control inflammation.

In ROSAH syndrome, the switch can become stuck in the "on" position, causing inflammatory signals to remain active when they should be turned off. Researchers designed DF-003 to help reduce this excessive signaling. The goal is to restore a healthier balance in the body's inflammatory response.

Does DF-003 treat symptoms or the underlying cause of ROSAH syndrome?

Many currently used approaches focus on managing individual symptoms or reducing inflammation broadly.

DF-003 is being designed to target ALPK1, the genetic driver of ROSAH syndrome. Researchers are studying whether this targeted approach may help address the underlying biology of the disease rather than individual symptoms alone.

What have researchers observed in clinical studies to date?

In preclinical studies, DF-003 demonstrated the ability to cross the blood-retina barrier and reach tissues affected by ROSAH syndrome. Clinical observations have shown potential improvements in several disease manifestations, including anhidrosis, headache symptoms, quality of life measures, inflammatory biomarkers, and selected ophthalmic findings. These findings are preliminary and continue to be evaluated in ongoing research.

Has DF-003 been approved by the FDA?

No. DF-003 is currently being studied in clinical trials and has not been approved by the FDA for the treatment of ROSAH syndrome. Drug Farm plans to initiate a global, randomized, double-blind, placebo-controlled study evaluating DF-003 in patients with genetically confirmed ROSAH syndrome.

How can I learn more about clinical trials?

Speak with your healthcare provider about clinical trial opportunities and whether participation may be appropriate for you. Eligibility varies by study and individual medical history.

Important Safety Information

DF-003 is an investigational medicine.

DF-003 has not been approved by the U.S. Food and Drug Administration (FDA) for the treatment of ROSAH syndrome. Researchers continue to evaluate its safety and effectiveness in clinical studies.

The information provided in this brochure is intended for educational purposes only and should not replace discussions with your healthcare providers. Always consult your healthcare team regarding diagnosis, treatment options, and participation in clinical research.

Hope Through Research

Patients, caregivers, healthcare professionals, researchers, and advocacy organizations are working together to improve understanding of ROSAH syndrome and advance future treatment options for the community.

Resources & Support

- Medical information: Contact our Medical Affairs / MSL team for scientific questions – https://www.drug-farm.com/disease-education
- Clinical trial information – https://www.drug-farm.com/clinical-trials
- Publications: Drug Farm research on ALPK1 and ROSAH syndrome – https://www.drug-farm.com/publications
- Patient & caregiver support: Connect with our team to stay informed – https://www.drug-farm.com/disease-education

- NORD (National Organization for Rare Diseases) — https://rarediseases.org/
- Global Genes — https://globalgenes.org/
- University of Utah Moran Eye Center – https://morancore.utah.edu/section-12-retina-and-vitreous/rosah-syndrome-progression-in-pediatric-patient/
- ROSAH Syndrome Community Network (RSCN) - https://rscn.co/
- ROSAH Syndrome Community Network Facebook Page — https://www.facebook.com/groups/rosahscn

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Connect with the Drug Farm team

- https://www.drug-farm.com/disease-education