

# Renal Cell Carcinoma Vaccine

eTheRNA immunotherapies NV is developing an mRNA immunotherapy for the treatment of renal cell carcinoma.



## RCC Overview

- **Renal Cell Carcinoma (RCC)** accounts for over **85% of all kidney cancers**.
- RCC is the 6th most frequent diagnosed cancer in men and 10th in women with over 400,000 new cases estimated each year worldwide, and incidence rates have been increasing in over the last 10 years.
- More than 30% of patients with RCC present advanced and/or metastatic diseases.
- 5-year survival rate of these patient is only 13%.
- Current Standard-of-Care therapy pembrolizumab-axitinib has a progression-free survival of only 15 months, and improved treatments are urgently needed.

## Vaccine Overview

- **Project Name**
  - A005
- **Stage**
  - Discovery
- **Components**
  - mRNA encapsulated in lipid nanoparticles (LNPs)
  - frameshift-derived shared neoantigens
  - TriMix adjuvant
- **Indication**
  - Specific neoantigen positive RCC
- **Route of Administration**
  - Intravenously

**frame**  
cancer therapeutics



## Vaccine Efficacy

- Mixture of proprietary LNPs loaded with TriMix mRNA and different mRNA's
- The LNP delivery system is also used with eTheRNA's A002 project vaccine, and has been shown to be safe in GLP toxicity studies in NHPs.
- Preliminary results indicate that a number of the selected Frameshift neoantigens are immunogenic.

## Neoantigen

- Our partner, Frame Therapeutics, has identified neoantigens arising from frameshift mutations in multiple genes. The identified neoantigens are shared by about 20% of RCC patients.
- Frameshift-derived neoantigens are unique to the tumour and therefore do not induce autoimmunity and are more immunogenic compared to missense mutation-derived antigens.