# Extraction of DNA from Onion

#### Overview

To most students of biology, DNA is an abstraction. You can memorize the names and structures of the nitrogenous bases and know all about the history of DNA's discovery, but until you actually handle DNA, it remains a strange and mysterious substance.

The purpose of this laboratory is to give you firsthand experience with DNA by isolating it from plant tissue. You will start with whole onions and end with a relatively pure preparation of DNA, containing literally millions of genes. Once isolated, the DNA can be stored in alcohol or dried out. It will actually be possible for you to hold in your hands the key to an organism's development and structure.

# Objectives

- To become familiar with the physical properties of DNA by isolating it from living tissue
- To learn the purpose of each step in the isolation procedure as it relates to the physical and biochemical characteristics of the genetic material

### Materials and Equipment

The following materials can be shared by a group of students:

- 52 °C water bath
- thermometer
- ice bucket
- 0.1 g scale
- 95% ethanol kept on ice

The following materials are needed for each student or pair:

- plastic gloves
- 100 ml homogenization medium
- · cutting board
- medium onion
- kmife
- weighing boat (plastic cup)
- cheesecloth (4 thicknesses
- · 500 ml beaker (kept on ice)
- 2-100 ml graduated cylinders (one kept on ice)
- 250 ml beaker (kept on ice)
- 1000 ml beaker
- DNA spooling rod

# **Dna Extraction Lab Instructor Manual**

**Wolfgang Guggemos** 

**Dna Extraction Lab Instructor Manual:** 

Uncover the mysteries within Explore with is enigmatic creation, Discover the Intrigue in **Dna Extraction Lab Instructor Manual**. This downloadable ebook, shrouded in suspense, is available in a PDF format (Download in PDF: \*). Dive into a world of uncertainty and anticipation. Download now to unravel the secrets hidden within the pages.

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