

- Step 1**
Input sample
- Step 2**
Onset age and pathological
data collection
- Step 3**
Personal cancer history and
family history collection
- Step 4**
Predicting risk of carrying
germline pathogenic variants

The figure displays four sequential screenshots of the DrABC model website interface, illustrating the steps for inputting data and predicting risk.

Step 1: Input sample - The first screenshot shows the website's header and a main heading: "Dr. ABC® Calculator DNA-repair pathway Associated Breast Cancer". It includes a brief description of the tool's purpose and a "Click here to start" button.

Step 2: Onset age and pathological data collection - The second screenshot shows a form titled "Personal information" where users can input data for a 33-year-old female breast cancer patient. Fields include "Age", "Sex", "Cancer history", "Pathological data", and "Family history".

Step 3: Personal cancer history and family history collection - The third screenshot shows a form titled "Family history" where users can input data for relatives' cancer history. Fields include "Cancer history", "Pathological data", and "Family history".

Step 4: Predicting risk of carrying germline pathogenic variants - The fourth screenshot shows the final results: "Risk of pathogenic variant in DNA-repair pathway genes: High" and "Risk of pathogenic variant in BRCA1/2 genes: High".

Fig. S12. Online Website for the DrABC Model.

A website interface (<http://gifts.bio-data.cn/>) was set up to accommodate extensions to the DrABC model and make it easily accessible to healthcare providers and researchers.