

SIQHEKEZE

“Imfihlo yempilo”

KUNGABE IKUSASA LISIPHATHELENI?



Kulo nyaka sigubha iminyaka engama-50 kwabakhona “ukutholakala kwemfihlo yempilo” kuka-Watson noCrick. Lapho baphakamisa isakhawo esimazombezombe (esifana nesitebhisi esisontiwe) ukwenzela izithako zamakhemikhali amajini ethu, ama-DNA.

Kwakuyisiqalo sokuqonda kahle ukuthi izinto eziphilayo zisebenza kanjani. Manje ososayensi bakwazi ukuqonda ukuthi ama-DNA aziphindaphinda kanjani ukuze izimfihlo/amakhodi amajini aqhubeke ukusuka kwesinye isizukulwane kuya kwesinye kanye nokuthi ama-DNA ayenza kanjani imfihlo /amakhodi ukwenza amaphrotheni adingekayo ukuze impilo iqhubeke.

Ososayensi abayizinkulungwane basemhlabeni wonke, kanye futhi naseNingizimu Afrika, basebenza njengamanje emkhakheni omusha wezobuchwepheshe bokuphilayo ukuhlola ububanzi obenabile bezisetshenziswa ezitsha ezin-gatholakala emikhakheni efana nezokwelapha, ezokulima, ezamahlathi kanye nobuchwepheshe bokudla.

Sinesibopho sokusebenzisa lobu buchwepheshe obusha obunamandla ngendlela yenkambo elungileyo, nephephile ukulungiselela ukuhlomula okuthexaxa kanye nobucayi obuncane obungahle bubekhona.

UmNyango weSayensinezobuchwepheshe uqalise uhlelo LOKUQONDA KOMPHEKATHI NGOBUCHWEPHESHE BE-BIOTECHNOLOGY oluhlelelwe ukulungiselela ukuqonda okusobala nokwesekiwe kwemigomo yesayensi kanye namandla e-biotechnology ube ugqugquzela ukuxoxisanangokuphathelele nokusetshenziswa kwalo. Funda kabanzi ngalokhu ku- www.pub.ac.za.

Uma unemibuzo noma kukhona okukuthintayo ngokuphathelele ne-biotechnology, sibhalele ku- speakup@pub.ac.za noma kwifeksi (012) 320-7803.



**UKUQONDA KABANZI
NGE-BIOTECHNOLOGY**

YINI I-DNA?

I-DNA imele “deoxyribonucleic acid”. Iyimolekhuli efana nomucu oyisakhiwo semigqa emibili, okuthi ngendlela eyenziwe ngayo ngokohlelo iqukathe izimfihlo/amakhodi adingekayo ukuze impilo iqhubeke.

YINI IJINI?

Ijini yisiqhephu se-DNA esithwalela iphrotheni ethile ulwazi, njengokuvezwa kwe-insulini.

YINI IKHROMOZOMU

Amakhromozomu imithambo yocingo eqinile ye-DNA evikelwa ngamaphrotheni ayisishuqulu atholakala kuwo wonke amangqamuzana/amaseli aphilayo. Okuphilayo okuhlukile kunamakhromozomu angamanani ahlukile.

Abantu banamakhromozomu angamabhanqa angama-23.

IYINI I-BIOTECHNOLOGY?

I-biotechnology ukusetshenziswa kwezinto eziphilayo (bio) ukwakha izikhali/amathuluzi asizayo kanye nobuchwepheshe (technology).

YINI UBUNJINIYELA BAMAJINI?

Ubunjiniyela bamajini ukuhamba kwamajini angawodwana ukusuka kokukodwa okuphilayo eya kokunye ukuguqula izimpawu ezithile. Ngale ndlela ijini yomuntu ye-insulini yafakwa kwibhakhithiliya futhi manje lamabhakhithiliya aveza i-insulini yabantu engasetshenziswa ngabantu abanesifo sikashukela/abandayabhethezi.

YINI I-CLONING?

I-cloning ukwenza amakhophi afana ncamashi amajini, amangqamuzana noma izinto eziphilayo, kufakelwa namakhophi okuphilayo okuphelele.

IPHROJEKTHI YAMAJINI OMUNTU ESEWONKE

Ososayensi emhlabeni wonke jikelele bayasebenzisana ukwenza amalazwe angacishe abe ngu-30 000 amajini atholakala ekwenziweni kwamajini omuntu. Loluhlwazi olusha lungaguqula ukuvikela kanye nokwelashwa kwezifo eziphathelele namajini.



DEPARTMENT OF
SCIENCE AND TECHNOLOGY

I-BIOTECHNOLOGY – Ulwazi olucacile kusayensi yezempilo