

## TÊ 1 CHIU<sup>n</sup> SENG-KHU PHÓ-THONG Ê KÒ-CHŌ

Kái-Phò-hák (解剖學, *anatomy*), chiū-sī kho-hák (科學, *science*) ê chit hāng, i ê bók-tek sī beh káng-kiù seng-khu ê kò-chō (構造).

Seng-lí-hák (生理學, *physiology*), chiū-sī kho-hák ê chit hāng, i ê bók-tek sī beh káng-kiù seng-khu tak só-chāi ê chok-iōng (作用, *function*). Seng-khu sī kúi-nā **téng-hō** ê chit lâi chiá<sup>n</sup>-ê, iā tak hāng ū tèk-piát ê kò-chō kap chok-iōng. Chiah-ê kiò-chòe khi (器), chhin-chhiū<sup>n</sup> chhih sī bī-khi, hi-chōng sī ho-khip-khi, ūi sī siau-hòa-khi ê chit pō-ūi.

Seng-khu hun chòe (1) khu-kàn (軀幹), kap (2) sù-chi. Khu-kàn sī thâu, kēng (ām-kún), heng, pak, ê sī pō. Sù-chi sī siōng-chi, hā-chi, ê nng pō, lâi tú khu-kàn.

Thâu-kòa (頭蓋, *skull*) ū kúi-nā tè kut lâi háp chiá<sup>n</sup>-ê, lâi-bīn khang-khak, thang tóe **náu-chhé** ê lō-ēng.

Thâu-kòa kap chek-chui-kut (脊椎骨, *spinal column*) kau-chiap ê só-chāi, sī chek-chui-kut ê téng-toan (上端). Chit ê chek-chui-kut sī tī seng-khu ê tiong-ng, chhin-chhiū<sup>n</sup> thiāu-á. Chit ê thiāu-á-lâi ū khang-khak ê kng, teh tóe chek-chhé (脊髓, *apinal cord*). Chit ê chek-chhé sī kap náu-chhé sa<sup>n</sup>-lián, hō mōh pau-ūi; iā tī mōh kap chek-chhé ê tiong-ng, ū náu-chek-chhé-ék (腦脊髓液, *cerebrospinal fluid*).

Seng-khu-lâi ū nng ê tōa kng, á-sī **khang-tōng** (腔洞), hō-chòe sit-bút-sèng-kng (植物性管, chēng-kng); tōng-bút-sèng-kng (動物性管; āu-kng; tē 1 tô). Chiah ê kng-lâi ū tóe seng-khu ê chōng-khi ê tōa-pō-hūn. Chit ê tōng-bút-sèng-kng, tī khu-kàn ê āu-siōng-pō, tóe sīn-keng ê tiong-chhu-khi-koan (中樞器官, *central nervous organ*), chiū-sī thâu-kòa-lâi, kap chek-chui-kut-lâi ê náu-chhé, kap chek-chhé. Sit-bút-sèng-kng tī khu-kàn ê chēng-hā-pō, tún-chek êng-ióng, si<sup>n</sup>-thò<sup>a</sup> ê khi-kū, chiū-sī tui chhui kap phī<sup>n</sup>-khang khi, kàu kong-būn kap jiō-tō-kháu ūi-chí; iā hun chòe heng, kap pak-tó.

Sit-bút-sèng-kng kiò-chòe chit ê miā ê **lí-khi** sī chiàu ē-tóe: “sit”-jī ê kóe seh sī **chai-chèng**; ì-sù sī chiah-mih jip tī ūi-tng, āu-lâi siau-hòa, lâi iú<sup>n</sup>-chhih tak-ūi, hoat-si<sup>n</sup> i ê cho-chit, lâi chiá<sup>n</sup>-chòe láng ê sin-thé; chhin-chhiū<sup>n</sup> chí iā tī thô-nih, hoat kui chāng chhiū.

Heng-khám-lâi ū sim-chōng (心臟), hi-chōng (肺臟). Pak-tó-lâi ū koa<sup>n</sup>-chōng (肝臟), ūi, sió-tng, chui-chōng 脾臟 *pancreas*), pí-chōng, sīn-chōng, pōng-kong, kap seng-sit-khi (生殖器, *organs of generation*) ê chit-pō-hūn.

Heng-khang kap pak-khang ê tiong-kan, ū chit tè bah, chòe keh-piah, kiò-chòe hôai<sup>n</sup>-keh-mōh (橫隔膜, *diaphragm*).

Seng-khu-gōa ū phê-hu pau-ūi. Seng-khu-lâi ê chōng-khi, á-sī chōng-khi ê kng-lâi ū liām-mōh (粘膜, *mucous membrane*), teh khàm in lâi-bīn ê **chhiū<sup>n</sup>-piah**, chhin-chhiū<sup>n</sup> chhui-lâi ū liām-mōh tī-teh.

Sòe-pau (細胞, *Cell*). Óah-miā ê khí-thâu, sī tī sòe-pau, bô lūn chhiū-á, tōng-bút, i ê óah-miā sī tui tī i ê lâi-bīn ū óah ê sòe-pau. Chit hō sòe-pau ū kúi-nā hāng ê khoán-sit, chiū-sī kok pō-ūi bô sio-siāng, só-i i ê chok-iōng bô sio-siāng; chóng kóng i ū kōan-lêng thang khip-siu chu-ióng-liāu, iā ū kōan-lêng thang pài-chhut bô lō-ēng ê mih, iā ū thang hoat-khi, iā ū koh-chài si<sup>n</sup> ê lát. Ì-sù sī ū hit hō thang koh si<sup>n</sup> sòe-pau chhin-chhiū<sup>n</sup> ka-kī.

Sòe-pau ū sa<sup>n</sup> hāng ê mih lâi chiá<sup>n</sup>-ê. Chiū-sī gōa-bīn ū pòh-pòh ê piah. Tī piah ê lâi-bīn sī liām-liām ná chhin-chhiū<sup>n</sup> chheng chúi ê chit, kiò-chòe gōan-hēng-chit (元形質, *protoplasm*). Tī chit ê gōan-hēng-chit ê tiong-ng ū khah kàu ê chit chhin-chhiū<sup>n</sup> chit liáp, kiò-chòe sòe-pau-hút (細胞核, *nucleus*; tē 2 tô, 1A, B, CH). Chit ê sòe-pau-hút kap gōan-hēng-chit ū khip-siu ê chok-iōng, iā ū koh-chài si<sup>n</sup> ê chok-iōng. Seng-khu lóng sī hō sòe-pau chiá<sup>n</sup>-ê.

Seng-khu nā khip-siu chu-ióng-liāu sī tui i ê sòe-pau, chhin-chhiū<sup>n</sup> ūi ê sòe-pau, kap tng ê sòe-pau, hi ê sòe-pau. Seng-khu nā pài-chhut bô lō-ēng ê mih, lóng sī tui sīn-chōng, hi-chōng, phê-hu ê sòe-pau, ū chit hō chok-iōng. Seng-khu-lâi ê chōa<sup>n</sup>-thé hun-pi kúi-nā téng-hō ê hun-pi-mih (分泌物, *secretion*), lóng sī tui chiah ê chōa<sup>n</sup>-thé ê sòe-pau, chiah ôe án-ni.

Sòe-pau ū kúi-nā khoán-ê, i ê hēng-chōng bô tâng, ū-ê tng-ê, ū-ê í<sup>n</sup>-ê, ū-ê sī kak-ê, ū-ê mng chhin-chhiū<sup>n</sup> ho-khip-khi ê chit-pō-ūi (tē 2 tô).

Seng-khu-lâi ū chiah ê sòe-pau tãi-seng teh óah ê sí gâu hun-thoa<sup>n</sup> ná kú ná hun, kàu hit ê sí ū kàu-giáh thang chòe seng-khu ê lō-ēng, chiah hun-piat chòe kúi-nā khoán; sīn-keng-sòe-pau lâi chiá<sup>n</sup> siók tī sīn-keng ê mih;

hơ-khip-sòe-pau lăi chiá<sup>n</sup> hơ-khip-khì. Chiah ê kúi-nā chấp bân ê sòe-pau sa<sup>n</sup> kap lăi tàu chân-sêng hō seng-khu tit-tiòh óah-miă ê lī-ek.

Seng-khu-lăi kun-bah ê sòe-pau nă **lóng-kiōng sa<sup>n</sup>-tâng** chiàu i ê chok-iōng, òe hō seng-khu òe tín-tâng. Sîn-keng-sòe-pau **chek-chū** chòe sîn-keng-chor-chit; chiah-ê nă chông-kiōng sa<sup>n</sup>-hō chiàu i ê chok-iōng, òe hō lāng ti-kak (知覺) chiū-sī gâu siū<sup>n</sup>, siat-hoat, iă ũ kôan-lêng thang chai seng-khu-gōa ê mih-kiă<sup>n</sup> sī chái<sup>n</sup>-iū<sup>n</sup>; iă tui chiah ê sîn-keng-sòe-pau ê chok-iōng, lāng òe hun-piat phang-chhàu, kng-àm, ũ sia<sup>n</sup> bô sia<sup>n</sup>. Koh chit khoán ê sòe-pau chek-chū chòe hơ-khip-khì; chiah-ê òe hō lāng tui khong-khì tit-tiòh sng-sò (酸素). Huìh ê sòe-pau, chhiah-huìh-kiū òe khip-siu sng-sò sàng kàu seng-khu ták só-chāi.

Chiah ê ták téng-hō ê sòe-pau sa<sup>n</sup> hô, kok-ê háp-hō chiàu i ê chok-iōng kiă<sup>n</sup> chòe, òe hō kui seng-khu **hóat-phoat**, ióng-kiă<sup>n</sup>.

Nă beh káng-kiù sin-thé ê sū, tiòh khòa<sup>n</sup> i ũ koan-liân chok-iōng ê chông-khì, lăi chip-háp chòe chit lūi, á-sī pō, á-sī hē-thóng (系統, *system*). Seng-khu ê hun-lūi chiàu kì tī ē-tóe:

1. Kut hē-thóng (骨系統, *Bony system*).
2. Kun-bah hē-thóng (筋肉系統, *Muscular system*).
3. Siau-hòa-khì hē-thóng (消化器系統, *Digestive system*).
4. Hơ-khip-khì hē-thóng (呼吸器系統, *Respiratory system*).
5. Huìh-kng hē-thóng (血管系統, *Circulatory system*).
6. Pì-jiō-khì hē-thóng (泌尿器系統, *Urinary system*).
7. Sîn-keng hē-thóng (神經系統, *Nervous system*).
8. Seng-sit-khì hē-thóng (生殖器系統, *Generative system*).
9. Khip-siu-khì hē-thóng (吸收器系統, *Absorptive system*).
10. Pâi-siat-khì hē-thóng (排泄器系統, *Excretory system*).
11. Ngó-koan-khì (五官器, *Organs of special sense*).

Sin-thé sī sòe-pau kap hiah ê sòe-pau ê tiong-kan sa<sup>n</sup> liân ê chit, chiū-sī ték-piăt ê kiăt-tè-chit (結締織, *connective tissue*), lăi chiă<sup>n</sup>-ê. Chiah ê sòe-pau kap kiăt-tè-chit lăi háp-chòe tui. Sòe-pau ê chok-iōng nă **sa<sup>n</sup>-tâng**, hiah ê sòe-pau lăi chiă<sup>n</sup> chòe chit thé. Án-ni chiah ê sòe-pau kap kiăt-liân ték-piăt ê kiăt-tè-chit kiò-chòe chor-chit (組織, *tissue*). Ū kúi-nā khoán ê chor-chit, chhin-chhiū<sup>n</sup> kut-chor-chit sîn-keng-chor-chit, chōa<sup>n</sup>-thé-chor-chit, kun-bah-chor-chit. Chhin-chhiū<sup>n</sup> náu ê chor-chit, khah chōe sī hō sîn-keng-sòe-pau kap thōan-tō-khì (傳道器) lăi chiă<sup>n</sup>-ê; pau-hâm lăi kóng sī sîn-keng-chor-chit.

Téng-bīn kóng-khí sòe-pau ũ kúi-ná khoán. Seng-khu-lăi ê chōe<sup>n</sup>-thé ê lăi-bīn ũ sòe-pau chin chōe, chiah ê sòe-pau pau-hâm lăi kóng sī sòe-pau-chor-chit (細胞組織, *cellular tissue*).

Phê-hu nng chân ê ē-tóe ũ chit chân kiò-chòe kiăt-tè-chit. Chit ê kiăt-tè-chit sī chor-chit ê chit khoán. Nng ê chông-khì sa<sup>n</sup>-liân ê tiong-ng, kut bah sa<sup>n</sup> óa ê só-chāi, lóng ũ kiăt-tè-chit. Kì<sup>n</sup>-nă kun-bah, chông-khì ê lăi-bīn, ták ũi ũ kiăt-tè-chit lăi pau-i, só-í nă chiong ták ê chông-khì it-chīn tū-khì, ták hāng ê **kheng-khak** iū-gōan tī-teh.