PATENT CLAIMS

1. A microscope slide transfer device, comprising:

a housing defining a chamber;

a plurality of slide carriers positioned in the chamber, the slide carriers having respective slide receiving openings; and

an adjustable spacing mechanism coupled to the housing, the adjustable spacing mechanism including

an actuator,

a drive apparatus coupling the actuator to the plurality of slide carriers, the drive apparatus is configured to move the slide carriers relative to one another along the chamber as the actuator is moved relative to the housing, wherein the actuator is movable between a first position and a second position, the plurality of slide carriers defining a first average pitch when the actuator is in the first position and the plurality of slide carriers defining a second average pitch when the actuator is in the second position.

~~2. The microscope slide transfer device of claim 1, wherein the actuator is movable between a first position and a second position, the plurality of slide carriers define a first average pitch when the actuator is in the first position and the plurality of slide carriers define a second average pitch when the actuator is in the second position.~~

~~3.~~2. The microscope slide transfer device of claim 1, wherein the actuator is movable between a first position and a second position to increase or decrease a pitch defined by the plurality of slide carriers.

~~4.~~3. The microscope slide transfer device of claim 1, wherein the adjustable spacing mechanism changes spacing between the slide receiving openings

of adjacent slide carriers proportionally relative to a distance the actuator moves relative to the housing.

~~5.~~4. The microscope slide transfer device of claim 1, wherein the drive apparatus includes a rack and pinion assembly and an expander, the rack and pinion assembly couples the actuator to the expander, and the expander is movable between a collapsed configuration in which the carriers are in a first arrangement and an expanded configuration in which the carriers are in a second arrangement, the first arrangement is different from the second arrangement.

~~6.~~5. The microscope slide transfer device of claim ~~5~~4, wherein the expander includes a first scissor mechanism and a second scissor mechanism, and the plurality of slide carriers are positioned between the first scissor mechanism and the second scissor mechanism.

~~7.~~6. The microscope slide transfer device of claim ~~5~~4, wherein the rack and pinion assembly includes a first rack coupled to one end of the expander, a second rack coupled to an opposing end of the expander, and a pinion positioned between the first rack and the second rack to drive the first rack and the second rack in opposite directions.

~~8.~~7. The microscope slide transfer device of claim 1, further comprising:

an expandable device carrying the slide carriers, and adjacent slide carriers move away from or towards one another when the expandable device moves in response to operation of the actuator.

~~9.~~8. A microscope slide holder device, comprising:

a housing;

a plurality of slide carriers; and

a drive apparatus coupled to the plurality of slide carriers and the housing, the drive apparatus having a first state and a second state, the slide carriers are stationary relative to one another when the drive apparatus is in the first state, and the slide carriers move away from one another when the drive apparatus is in the second state,

wherein the drive apparatus is capable of moving adjacent slide carriers away from or towards one another.

~~10.~~9. The slide holder device of claim ~~9~~8, further comprising:

a manual actuator configured to cause the drive apparatus to change from the first state to the second state.

~~11.~~10. The slide holder device of claim ~~9~~8, further comprising:

a controller coupled to the drive apparatus, and the controller is configured to command the drive apparatus to be in the first state or the second state.

~~12. The slide holder device of claim 9, wherein the drive apparatus is capable of moving adjacent slide carriers away from or towards one another.~~

~~13.~~11. The slide holder device of claim ~~9~~8, wherein the slide carriers are movable between a first linear arrangement and a second linear arrangement, the slide carriers in the first linear arrangement define a first average pitch, the slide carriers in the second linear arrangement define a second average pitch that is substantially different from the first average pitch.

~~14.~~12. The slide holder device of claim ~~13~~11, wherein the first average pitch is at least 10 percent less than the second average pitch.

~~15.~~13. A method of moving microscope slides from a first slide holder to a second slide holder, the method comprising:

simultaneously transferring a plurality of slides from the first slide holder into respective carriers of an adjustable slide holder device while the carriers define a first average pitch;

moving the carriers relative to other such that the carriers define a second average pitch that is different from the first average pitch; and

simultaneously transferring the microscope slides from the carriers to respective slide holding features of the second slide holder while the carriers are at the second average pitch.

~~16.~~14. The method of claim ~~15~~13, wherein simultaneously transferring the plurality of microscope slides from the first slide holder into the respective carriers of the adjustable slide holder device comprises moving the plurality of microscope slides held at an average pitch that is substantially equal to the first pitch into the carriers.

~~17.~~15. The method of claim ~~15~~13, wherein simultaneously transferring the microscope slides from the carriers to respective slide holding features of the second slide holder is performed while the slide holding features are at an average pitch that is substantially equal to the second average pitch.

~~18.~~16. The method of claim ~~15~~13, wherein moving the carriers relative to one another includes expanding a scissor mechanism from a collapsed configuration to an expanded configuration, and the scissors mechanism is coupled to the carriers.