

10.3.3

Lesson 10

Introduction

In this lesson, students participate in a peer review activity during which they offer constructive feedback to their classmates about the entire research-based argument paper. Students review their peers' papers for elements of the W.9-10.1 standard and supporting standards (W.9-10.1.a–e) that have been introduced in this unit. Additionally, students peer review for English grammar and usage and writing conventions. Students are assessed on their completion of the Peer Review Accountability Tool and the quality of the implementation of the peer revisions to their own papers. For homework, students continue to implement revisions based on peer feedback and complete the “Final Decision and Explanation” portion of peer feedback on the Peer Review Accountability Tool. Additionally, students read their drafts aloud (to themselves or someone else) to identify problems in syntax, grammar, or logic.

Standards

Assessed Standard(s)	
W.9-10.5	Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grades 9–10 on page 54.)
Addressed Standard(s)	
W.9-10.1.a–e	<p>Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. Explore and inquire into areas of interest to formulate an argument.</p> <ul style="list-style-type: none"> a. Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among claim(s), counterclaims, reasons, and evidence. b. Develop claim(s) and counterclaims fairly, supplying evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level and concerns. c. Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between

	<p>reasons and evidence, and between claim(s) and counterclaims.</p> <p>d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.</p> <p>e. Provide a concluding statement or section that follows from and supports the argument presented.</p>
SL.9-10.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners <i>on grades 9–10 topics, texts, and issues</i> , building on others’ ideas and expressing their own clearly and persuasively.
L.9-10.1	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
L.9-10.2.a-c	<p>Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p>a. Use a semicolon (and perhaps a conjunctive adverb) to link two or more closely related independent clauses.</p> <p>b. Use a colon to introduce a list or quotation.</p> <p>c. Spell correctly.</p>
L.9-10.3.a	<p>Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.</p> <p>a. Write and edit work so that it conforms to the guidelines in a style manual (e.g., <i>MLA Handbook</i>, <i>Turabian’s Manual for Writers</i>) appropriate for the discipline and writing type.</p>

Assessment

Assessment(s)
<p>Student learning in this lesson is assessed via:</p> <ul style="list-style-type: none"> • Implementation of peer review edits (from the Peer Review Accountability Tool) to the research-based argument paper • Individual student responses to the peer editing on the Peer Review Accountability Tool (Final Decision and Explanation Column only). <p>① Students implementation of peer review edits are assessed using the relevant portion of the 10.3.3 Rubric and Checklist.</p>

High Performance Response(s)

A High Performance Response should:

- Include thoughtful responses on Peer Review Accountability Tool (Final Decision and Explanation Column) that describe how the student chose to address their peers' concerns and suggestions.
- Effectively integrate at least one suggestion and/or revision, as appropriate, into the draft of the research-based argument paper.

① See [Model Peer Review Accountability Tool](#) for more information.

Vocabulary**Vocabulary to provide directly (will not include extended instruction)**

- None.*

Vocabulary to teach (may include direct word work and/or questions)

- None.*

*Students should use their vocabulary journals to incorporate domain-specific vocabulary from Unit 10.3.2 into their argument research paper, as well as to record process-oriented vocabulary defined in the lesson.

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards & Text: <ul style="list-style-type: none"> • Standards: W.9-10.5, W.9-10.1.a–e, SL.9-10.1, L.9-10.1, L.9-10.2.a-c, L.9-10.3.a 	
Learning Sequence: <ol style="list-style-type: none"> 1. Introduction of Lesson Agenda 2. Homework Accountability 3. Peer Review Round Robin Instruction 4. Peer Review Round Robin 5. Lesson Assessment 6. Closing 	<ol style="list-style-type: none"> 1. 5% 2. 10% 3. 10% 4. 50% 5. 20% 6. 5%

Materials

- Sticky notes, colored pens or pencils, or computer-based peer review software (such as track changes in Microsoft Word or GoogleDocs editing tools)
- Copies of Peer Review Accountability Tool for each student
- Student copies of the 10.3.3 Rubric and Checklist (refer to 10.3.3 Lesson 3)

Learning Sequence

How to Use the Learning Sequence	
Symbol	Type of Text & Interpretation of the Symbol
10%	Percentage indicates the percentage of lesson time each activity should take.
no symbol	Plain text indicates teacher action.
	Bold text indicates questions for the teacher to ask students.
	<i>Italicized text indicates a vocabulary word.</i>
▶	Indicates student action(s).
💬	Indicates possible student response(s) to teacher questions.
❗	Indicates instructional notes for the teacher.

Activity 1: Introduction of Lesson Agenda

5%

Begin by reviewing the agenda and assessed standard for this lesson: W.9-10.5. In this lesson, students participate in a peer review of the entire research-based argument paper. Students read drafts of three of their classmates' papers addressing specific elements of W.9-10.1.a-e, and several language standards and respond to their classmates using constructive criticism. Finally, students use their classmates' constructive criticism to revise and improve their drafts.

- ▶ Students look at the agenda.

Activity 2: Homework Accountability

10%

Ask student volunteers to briefly share one or two grammatical edits they made for homework and to explain their decisions, referencing L.9-10.2 on their 10.3.3 Rubric and Checklist.

- ▶ Students share one or two grammatical edits with their peers and explain their decisions.
- 💬 Responses will vary based on individual students' papers.
- ❗ Students may have questions about grammar and usage, which, time-permitting, can be addressed during Homework Accountability.

Activity 3: Peer Review Round Robin Instruction

10%

Instruct students to get into their pre-established research teams. Students remain in these teams throughout the peer review process. Instruct students to take out their research-based argument paper drafts.

- ▶ Students get into their research groups and take out their research-based argument paper draft.

① Consider placing students into new groups instead of their pre-established research teams to provide a broader range of peer review for the students.

Explain to students that in this lesson, they continue the work of collaborative discussion outlined in SL.9-10.1, to which students were previously introduced. Remind students these discussion strategies have been taught in previous modules.

- ▶ Students listen.

① Encourage students to keep in mind the Module Performance Assessment by considering the skills inherent in the Speaking and Listening Standards during this discussion activity. Remind students that they will present their research orally at the end of the module and that this activity provides an opportunity to begin preparing for the assessment presentation

Instruct students to number the paragraphs on their paper in the left margin. Explain that this helps students peer review one another's work.

- ▶ Students number the paragraphs.

Explain to students that during this peer review process, they provide constructive criticism to their peers.

Consider providing students with the following definition: *constructive criticism* means “criticism or advice that is useful and intended to help or improve something, often with an offer of possible solutions.” Explain to students that *constructive criticism* helps them share advice with their peers in a positive and academic manner.

- ▶ Students listen.

① Remind students that they have been progressing toward this more formal peer review by participating in mini-peer reviews in previous lessons.

Ask students to Turn-and-Talk with their small group to discuss examples of how to offer constructive criticism, specifically sentence starters for providing constructive criticism.

💬 Student responses may include:

- “This could be stronger if you add...”
- “If you move this paragraph and this paragraph, it would...”

- “This might make more sense if you explain...”
- “Instead of this word, why not use...?”

Lead a share out of student responses.

- ① Remind students that the word *construct* meaning “build”, is in *constructive criticism*. This means that students’ comments should always be intended to build a better paper. Students should add suggestions or comments that give the writer some way to fix the problem, instead of just identifying the problem. Consider providing non-examples of constructive criticism and showing how they can be made constructive (e.g., “This doesn’t make sense.” vs. “This might make more sense if you explain...”).

Explain to students that they will read three papers in three rounds of peer review looking for different elements of W.9-10.1.a-e, as well as some of the language standards they focused on in previous lessons.

Explain to students that, in college or in the working world, adults often have peers or colleagues review their writing before they submit their final draft. They may get a peer’s opinion on an important email draft, a business proposal, or a college thesis. Ask students to identify the value of having someone else read a research-based argument paper draft before it is submitted.

💬 Student responses may include:

- A peer review can point out whether or not ideas make sense.
- A reviewer can help the writer find convention or grammatical errors.
- A reviewer can tell the writer where the central or supporting claims are weak or not convincing, or where additional evidence is needed.
- Reviewing can show the writer where more background information is needed.
- The reviewer can provide more precise words or specific terms to explain something.
- A reviewer can help identify problems in formality or tone.

Explain that students will review three of their classmate’s papers, but for each round of feedback, they will focus on different standards that appear in the 10.3.3 Rubric and Checklist.

Display and explain the peer review process to students:

- During the first review, students read for the central claim, supporting claims, and counterclaims while also evaluating reasoning and evidence (W.9-10.1.a, W.9-10.1.b, and W.9-10.1.e).
- During the second review, students focus on transitions between sentences, paragraphs, and larger ideas and the paper’s overall cohesiveness (W.9-10.1.c and W.9-10.1.d).
- During the third review, students focus on formatting and conventions, including MLA format, formal style and objective tone, and mechanical and grammatical conventions (L.9-10.1, L.9-10.2.a-c and L.9-10.3.a).

- After the third and final review, writers revise their papers based on the peer feedback provided.
- ▶ Students examine the peer review process.

Activity 4: Peer Review Round Robin

50%

Instruct students to pass their research-based argument paper drafts to the student on the right. They also need sticky notes and/or colored pens or pencils to aid in their review.

- ▶ Students pass their drafts to the peer on the right and gather necessary materials.
- ① It may be helpful, if students write directly on the papers or use sticky notes, to have students use different color pens or colored pencils or use color-coded sticky notes for clarity.
- ① Students can peer review using track changes in a word processing program. GoogleDocs and other document sharing programs have their own protocols for tracking changes. Make sure your students are prepared to use these tools before they begin modifying their peers' drafts. Remind students to save their original documents with a different filename to safeguard against accidental deletions or corruption.
- ① If handwriting is a barrier to the peer editing process, allow students to read aloud their drafts to one another to provide clarity.

Distribute one Peer Review Accountability Tool to each student. Remind students that part of the assessed standard W.9-10.5 is to select the most significant change for revision concerning purpose and audience. Once the student reviewer completes each review, the student will add the most significant revision to their peer's Peer Review Accountability Tool. Each reviewer uses one row of the tool per review.

- ▶ Students examine the Peer Review Accountability Tool.

Explain that during the first round of revision, peer reviewers focus on the strength of substandards W.9-10.1.a, W.9-10.1.b, and W.9-10.e. Instruct students to take out their copies of the 10.3.3 Rubric and Checklist and look at these substandards.

- ▶ Students look at substandards W.9-10.1.a, W.9-10.1.b, and W.9-10.e on their 10.3.3 Rubric and Checklist.

Instruct students to focus on these skills in this first round of review, as they add constructive criticism to their peer's research-based argument paper draft.

Model identifying errors for substandards W.9-10.1.a, b, e, and adding constructive criticism using the sample student paper as the example.

- Explain that if the central claim is not stated precisely in a peer's paper, it is a good idea to identify where in the introduction it would be most effectively stated.
 - Explain to students that, if, in a peer's paper, there is no counterclaim, a good suggestion would be to add a counterclaim. If possible, identify where the counterclaim would work best.
 - If a claim is not strongly supported by evidence, suggest including more or diverse evidence as valuable constructive criticism.
- ① Consider displaying the sample student paper for students to see the modeling. The sample student paper is located in 10.3.3 Lesson 11.
- ① W.9-10.1.a was taught in 10.3.3 Lessons 1 and 4; W.9-10.1.b was taught in 10.3.3 Lesson 2 and reviewed in 10.3.3 Lesson 8; W.9-10.1.e was taught in 10.3.3 Lesson 6.

Ask students to name other suggestions, based on the W.9-10.1 a, b, e skills listed in the 10.3.3 Rubric and Checklist.

💬 Student responses may include:

- Suggest a peer remove evidence that does not effectively support a claim
- Propose that a peer rearrange claims or pieces of evidence to better support the argument
- Identify limitations to a claim that are not mentioned in a paper, and suggest limitations that might be included
- Suggest that the concluding statement tie more closely to the arguments presented

Instruct students to complete the first round of review, adding constructive feedback regarding substandards W.9-10.1 a, b, e. Circulate and support students, as necessary.

- ▶ Students review peer papers, adding constructive criticism in the margin, on sticky notes, or electronically.

Display the Model Peer Review Accountability Tool for all students to see. Model where Reviewers 1, 2, and 3 enter their most significant revision for the writer.

- ▶ Students listen, following along with the modeling.

Point to the first column, labeled "Original." Explain that in this section, students write the paragraph number and a few words from the sentence to indicate where in the paper the revision needs to be made.

Inform students they need to determine the most significant revision regarding the standards analyzed in this first round of review.

Point to the second column, labeled "Peer Suggestion." Explain that in this section, students make a suggestion for how to revise the paper. Note that because the expectation is to provide constructive

criticism, students must think about how they would revise the paper as if it were their own, and make that suggestion. For example, explain to students that if the writer did not include any counterclaim, it is not enough to just write “Add a counterclaim.” Instead, students should provide some suggestions of possible counterclaims.

- ▶ Students listen.

Allow peer reviewers time to select the most significant revision from this first round of review, and add it to the first row of the Peer Review Accountability Tool. Students should complete both the “Original” and the “Peer Suggestion” columns of the first row of the tool.

- ▶ Peer reviewers select the most significant revision and add it to the first row of the Peer Review Accountability Tool by completing the “Original” and “Peer Suggestion” columns of the first row of the tool.

Instruct students to pass the research-based argument papers to the right again, so each student has a new draft to peer review for the second round of review.

- ▶ Students pass papers and listen for instructions.

Inform students that during this second round of review, peer reviewers focus on the strength of substandards W.9-10.1.c and W.9-10.1.d.

- ▶ Students examine substandards W.9-10.1.c and W.9-10.1.d on the 10.3.3 Rubric and Checklist.

Remind students to focus on these skills as they add constructive criticism to their peer’s papers.

- ▶ Students listen.

① W.9-10.1.c was taught in 10.3.3 Lessons 5 and 6, W.9-10.1.d was taught in 10.3.3 Lessons 7 and 8.

① Remind students to reference the Connecting Ideas Handout in Lesson 5 of this unit for more support if needed.

Ask students to name suggestions of constructive criticism that would focus on these skills, based on the substandards W.9-10.1.c and W.9-10.1.d.

💬 Student responses may include:

- Suggest a different transition word than what is provided to clarify the relationship between two ideas
- Suggest a phrase be added to clarify the relationship between a claim and evidence
- Identify portions of the text where the tone is less formal and suggest revisions

Instruct students to review their peers' papers, adding constructive feedback based on substandards W.9-10.1.c and W.9-10.1.d. Allow students time to select the most significant revision and add it to the Peer Review Accountability Tool.

- ▶ Students review their peers' papers and add constructive feedback for substandards W.9-10.1.c and W.9-10.1.d, select the most significant revision, and add it to the second row of the Peer Review Accountability Tool.

Circulate and support students, as necessary.

Instruct students to pass the papers to the right again, so each peer reviewer has a new draft to read for the third round of review.

- ▶ Students pass papers to the right and listen for instructions.

Explain to students that during this third round of review, peer reviewers focus on the strength of substandards L.9-10.2.a-c, L.9-10.3.a, and standard L.9-10.1.

- ▶ Students examine substandards L.9-10.2.a-c, and L.9-10.3.a and standard L.9-10.1 on their 10.3.3 Rubric and Checklist.

Remind students to focus on these skills as they add constructive criticism to their peers' drafts.

- ▶ Students listen.

① Consider displaying the student model paper to show criticism focused on these skills.

① L.9-10.1 was taught in 10.3.3 Lesson 5; L.9-10.2.a-c were taught in 10.3.3 Lesson 9; and L.9-10.3.a was taught in 10.3.3 Lesson 3.

Ask students to suggest constructive criticism that would focus on these skills, based on the substandards L.9-10.2.a-c, L.9-10.3.a and standard L.9-10.1.

💬 Student responses may include:

- Identify non-parallel structure and suggest a revision
- Propose combining a series of short sentences through a semi-colon to add variety to the writing
- Identify misspelled words and provide the correct spellings
- Suggest the use of specific or precise terms relevant to the topic rather than general terms
- Identify misuse of a colon or semicolon and suggest revisions
- Identify places where MLA format is improperly applied and suggest corrections

Instruct students to review their peers' papers, adding constructive feedback based on the focus standard L.9-10.1, and substandards L.9-10.2.a-c, and L.9-10.3.a. Allow students time to select the most significant revision and add it to the Peer Review Accountability Tool in the third row.

- ▶ Students review their peers' papers, adding constructive feedback, and select the most significant revision and add it to the third row of the Peer Review Accountability Tool.

Circulate and support students, as necessary.

- ① Consider having students share out about the peer review process, identifying ways in which the process strengthens their writing and reading skills, and naming challenges inherent in the process.

Activity 5: Lesson Assessment

20%

Explain to students that when they receive the feedback from their peers, they do not have to accept all the suggestions, but they should consider each suggestion carefully before revising their papers.

- ▶ Students listen.

Remind students that they have three revisions that their peers have identified as the most significant on the Peer Review Accountability Tool. Instruct students to look at the "Final Decision and Explanation" section of the Peer Review Accountability Tool. Explain that in this section, each student decides whether he or she implements the feedback or not and explain why. Remind students that their responses will be assessed.

- ▶ Students examine the Peer Review Accountability Tool.

Instruct students to collect the draft paper and the Peer Review Accountability Tool from their peers.

- ▶ Students retrieve their draft papers and the Peer Review Accountability Tool that contain significant revisions from their peers.

Instruct students to read through all the constructive criticism carefully and to complete one row of the Peer Review Accountability Tool (Final Decision and Explanation) where they will implement the revision. Instruct students to implement the revision in the paper.

- ▶ Students complete one row of the Peer Review Accountability Tool individually, and implement the selected feedback into their papers.

- ① Consider modeling completing the Final Decision and Explanation section of the Peer Review Accountability Tool if students need support.

For the lesson assessment, students select and submit one piece of peer feedback as well as their drafts that show where and how they have implemented the feedback. Consider circulating and checking students' revision work to hold them accountable for this lesson assessment.

Activity 6: Closing

5%

Display and distribute the homework assignment. For homework, instruct students to continue to implement revisions based on peer feedback. Additionally, instruct students to read their drafts aloud (to themselves or someone else) to identify problems in syntax, grammar, or logic in order to prepare for the following lesson's End-of-Unit Assessment.

- ▶ Students follow along.

Homework

Continue to implement revisions based on peer feedback. Additionally, read your drafts aloud (to yourself or someone else) to identify problems in syntax, grammar, or logic in order to prepare for the following lesson's End-of-Unit Assessment.

Peer Review Accountability Tool

Name:		Class:		Date:	
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Original	Peer Suggestion	Final Decision and Explanation

Model Peer Review Accountability Tool

Name:		Class:		Date:	
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Original	Peer Suggestion	Final Decision and Explanation
Paragraph 5, claim that “granting researchers legal ownership of others’ genes, cells, or tissues infringes on individuals’ rights to privacy and control over their genetic information.”	This claim is not supported well enough with quotes or evidence from the sources. It only contains reasoning.	I went back to my sources and added specific quotes from the texts to support the reasoning and the claim.
Paragraph 3, “drawing blood and plasma.”	These are not parallel. Suggestion: blood and plasma (no “drawing”)	Great catch! I changed to blood, plasma, breast milk, and hair to make them align for parallel structure.
Paragraph 2, first sentence.	There is a shift that detracts from the formal and objective tone of the rest of the paper.	I accepted the suggested change to correct the tone shift.

Model Sample Paper with Revisions

Grave-robbers, body snatchers, reanimated monsters, this is the stuff of horror films and nightmares. In the real world, human tissue can be removed from a body without consent and used to develop a cell line or genetic map. Not quite a horror movie, since it is a nightmare when it happened to Henrietta Lacks and her family: in 1951, doctors removed some of Henrietta's cells without asking and grew the first line of immortal cells. The Lacks family was in the dark for decades about Henrietta's cells, and what they learned over time was incomplete and misleading information that did nothing to help them understand what had been done to Henrietta and why. It is this fear of the unknown and a lack of understanding concerning medicine and science—that is, how human tissues are used or what can be created from them—that fuels a fear of mad scientists like those in horror films. Care must be taken to protect patients and their families from psychological trauma when tissues are removed from the body and used without consent for research or profit. But how much protection is enough? Who should own tissue, or profit from tissue after it has been surgically removed from a patient's body? Complications are inherent in profiting from tissues. Granting anyone the rights to sell human tissue is morally and ethically questionable. Researchers should not have rights to sell human tissue. Nor should patients have rights to sell human tissues.

If you have ever read the laws about ownership of tissue, you know that the law is very confusing and makes no sense. Even patients granting permission to a research institution to use donated tissue can confuse who actually owns the donated tissue. "As it stands now, tissue banks appear to have de facto ownership over sample inventories and the right to use them as they wish" (1174). Consent forms, or forms that patients complete and sign before or after surgery, can be overly complicated and written in legal language that is difficult to understand. As a result, patients may not comprehend what they are

Commented [R3_1]: Use a colon after "monsters" instead of a comma.

Commented [R2_2]: Need a different transition: maybe, "horror movie, but it is..."

Commented [R2_3]: Revise these short sentences into one that uses a semi-colon. Suggestion: "Based on the complications inherent in profiting from tissues, granting anyone the rights to sell human tissue is morally and ethically questionable; neither researchers nor patients should have rights to sell any human tissue."

Commented [R3_4]: Tone shift. Suggest: "What the law says about ownership of tissue is already complicated and confusing."

Commented [R3_5]: In-text citation is not formatted correctly. Need to say the author's name in the sentence: "According to _____"

agreeing to regarding their donated tissue. According to Wayne Grody, MD, quoted in Schmidt, “patient ownership could lead to the advent of daunting informed consent forms that might deter some individuals from donating samples” (1175). However, even if permission to use tissue is granted through consent forms, these forms may not clearly define who gets final ownership of donated tissues, thus affecting who can profit from the tissues if the tissues are sold. In the case of Dr. Catalona, tissue was collected by one researcher using a consent form provided by the university where he worked and when he moved to another university, many of his patients moved with him. However, the consent form did not provide enough information to make it clear that ownership of the tissue would be retained by the original university, forcing him to leave all the tissue samples behind, against the wishes of many of his patients, which is a clear example of how many legal consent forms do not cover the complex issues involving patient’s permission and transfer of legal ownership, and if there is not a clear idea of ownership, selling tissues can be even more confusing (Hing).

It is legal to sell eggs, sperm, drawing blood and plasma, breast milk, and hair. (Park; Truog, Kesselheim, and Joffe 38). While it is currently illegal to sell, but legal to donate, internal organs, skin, corneas, bone, and bone marrow, it is legal to sell bone marrow extracted through peripheral apheresis (Park). This extraction process shows that “marrow cells should be considered a fluid like blood,” and therefore legal to sell (Park). As new technologies like these emerge, the issue of tissue ownership, sale, and donation grows more complicated because there are more distinctions being made about what kinds of tissues can be bought and sold. In order to have clear and concise guidelines, regardless of the technology involved, it should not be legal to sell any human tissue for profit.

The legal issues that deal with patients’ rights to tissue removed during surgery need to be clearly defined because doctors and researchers can profit from tissue taken during surgery. Patients cannot

Commented [R2_6]: Suggest breaking this sentence up into smaller sentences.

Commented [R1_7]: It would be better to state the claim for this section clearly at the beginning: “It is easy to understand how the problem of selling one’s own tissue becomes even more complicated due to the differences of what tissue is legal and illegal to sell.”

Commented [R2_8]: This list is not parallel. I suggest “blood and plasma” instead of “drawing blood and plasma.”

Commented [R3_9]: You might want to define this for your audience.

claim ownership of tissue removed during surgery because of hazardous waste laws, so patients cannot make a profit from their removed tissues. For example, a patient cannot legally take his or her appendix home after an appendectomy (Schmidt 1174). However, patients must grant consent for residual tissues to be used in research (Truog, Kesselheim, and Joffe 37–38). This current system does not offer enough protection for the patient, as when a patient passes away, donated tissues can be banked for medical use or research, or “processed and sold for profit and become such items as bone putty and collagen” (Josefson 303). So, even though dying patients donate or give consent for their tissues to be used in research, they probably do not realize they are also giving consent for donated tissues to be sold for profit. Also, “tissue banking is big business and the law is readily side-stepped by invoking ‘processing and handling fees’ so that the tissue itself is not officially sold” (Josefson 303). So, donated tissue is often sold through unofficial “fees” without any consequences. These examples demonstrate that the line between donation and sale can be complicated and often blurred for the purpose of making money. In order to both protect a patient’s rights and ensure that choices are made with the advancement of medical understanding, it is better to prevent any sale or profit resulting from tissue donated during surgery or any medical situation.

In addition to the problems surrounding the sale of tissue, granting researchers legal ownership of others’ genes, cells, or tissues infringes on individuals’ rights to privacy and control over their unique genetic information, as “individuals can be identified by genetic sequences numbering just 75 base pairs of DNA” (Schmidt). A large section of the population objects to the patenting of their genetic information. Despite these objections, the possible financial incentives are enough to encourage many for-profit companies to patent genetic codes aggressively. Researchers from universities are also incentivized to misuse and exploit individuals’ rights and privacy through their tissue and genetic

information. Profits and personal gain should not take precedent over an individual's right to privacy, especially in relation to the unique genetic make-up of one's own body.

Commented [R1_10]: I think you need to add evidence from your sources to support these ideas.

Furthermore, the sale or resale of human tissue is dehumanizing and exacts a psychological toll on the patient or the patient's family. In a similar situation to Henrietta Lacks, a patient named John Moore also had his tissue removed, and his doctor created a cell line, all the while lying to Moore about what he was doing with the tissue. Andrews states, "When Moore found out that he was Patent No. 4,438,032, he felt that his integrity had been violated, his body exploited and his tissue turned into a product." According to Catalona, "patients have grown increasingly worried that genetic information extracted from tissues could somehow be used against them." He states that, "insurance companies...might refuse coverage to the donors or their children on the basis of inherited disease susceptibility" (Schmidt 1175). Even when confronted with standard tissue donation practices, like donating the tissues of a deceased relative, the majority of the population is against the sale of these tissues: "73 percent of the U.S. families asked to donate tissue from deceased relatives say that it is "not acceptable for donated tissue to be bought and sold, for any purpose" (Andrews). Although it seems like a good idea, the sale of tissue is harmful to the individual on a personal level.

Commented [R1_11]: You may want to include a counterclaim here: Using human tissue is important for research.

Some might argue that all tissue should be available for an individual to sell if it does not endanger the individual's life and would improve his or her financial situation. An often cited claim is that compensation is necessary to meet the demand for donated tissues: "With about 114,000 people waiting for organs in the U.S. alone on any given day, and only 3,300 donors, the urgent medical need runs up against moral standards of the value of human life" (Park). A monetary incentive could be extremely affective and allow those without financial means to use their body as a resource for an income as Truog, Kesselheim, and Joffe reference in the case of Ted Slavin who had valuable blood and

Commented [R3_12]: Spelling. Should be "effective."

was able to sell a serum for as much as \$10,000 per liter (37). Even if there is not a large sum to be made, there are other types of incentives that carry social benefits and would promote donation, such as the type cited in the Catalona decision: “a voucher that can be applied to things such as scholarships, education, housing or a donation to a charity” (Park). Though these incentives would convince a lot of people to donate samples, it would certainly be dangerous and skew donations towards those who might be thinking of earning some money quickly rather than thinking of their overall health. It is also important to keep in mind that “few individuals will contribute tissues that generate financial blockbusters” (Truog, Kesselheim, and Joffe 38). Without the ability to profit from specific tissues, doctors may also be more willing to reveal when tissues are valuable, and this would allow patients to decide how generous they want to be with their donations.

Tissue is removed every day during surgical procedures such as liposuction, amputations, mastectomies, and even biopsies of healthy tissue. In every cell of a person’s body is a mirror of the human within whose body the cell began. As humans learn more about genetics and heredity, the mirror can reflect that donors children and parents, stretching farther back and forward in time, connecting biology to information that can support groundbreaking research or provide valuable capital that can be used in positive or negative ways. Because of the problems that are inherent in the selling of tissue, the dangers of turning a system that saves lives into a for-profit business, and the infringement on individual’s rights and liberties, it is clear that changes must be made to the way we handle tissue sale and ownership. In order to protect the rights of patients and the privacy and dignity of individual human beings, neither researchers nor patients should have rights to sell their tissue. Money and science should not mix, for the good of humanity.

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