

SURF Research Proposal Form

****This proposal form is for all students applying to: SURF L&S, SURF Rose Hills Independent, or SURF Rose Hills Experience. This is NOT the correct application form for the Math Team fellowships.**

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Instructions: The SURF proposal has 5 sections. Each section specifies how long your response should be (approximate word number). Please keep your responses single space and use 12pt font. While it is useful and appropriate to use technical language in parts of your proposal (terms specific to your discipline), you should aim to have your proposal understandable to a more general academic audience. Avoid jargon or overly abstract phrasings. Type or paste in your responses to the 5 prompts below.

When you are finished, save the document as a PDF with a filename in this format:

ProposalYourLastName.pdf (example: ProposalSmith.pdf)

You will be asked to upload this completed PDF research proposal form when you submit your application online.

1. Research Statement: 150-200 words. What specific question will you pursue with your research and why is it important to the field? This section enables you to give the reviewers an overview of your project. Keep in mind that other sections give you an opportunity to develop more details around the background, methodology, and rationale for the project.

Current U.S. state laws permit citizens to claim exemptions from vaccine mandates based on medical contraindications, religious beliefs, or personal beliefs. These mandates vary significantly among states. West Virginia, for example, has permitted only medical exemptions since 1905, while its neighbor, Ohio, currently permits all three forms of exemption.

Recently, in response to outbreaks of measles attributed to subpar vaccination rates, the personal belief exemption has come under close scrutiny from lawmakers, medical officials, and the public. Current scholarly literature, however, lacks a clear history of the personal belief exemption, in part because that history varies in every state.

In this project, I will visualize and narrate the story of the personal belief exemption in American history. Through an interactive essay grounded in original historical research, I will explore how the exemption's changing language, geographical spread, uneven application, and legal context reflect and inform America's ever-shifting notions of conscience, liberty, and morality. In doing so, I aim to create a resource about the history of the personal belief exemption accessible to members of the public, policymakers, and public health experts, one that will surely prove useful as the unresolved fate of the personal belief

exemption complicates potential Covid-19 vaccine mandates.

2. Background to the Topic and Rationale for Your Research: 300-400 words. What is already known about the field of research you will be working on? How does your research project fit in with what is being done currently in the field, and how does it build upon knowledge on the topic or fill in gaps in the field? Please cite references from the literature when applicable; these citations should be listed in #5 of this proposal.

American anti-vaccination finds some of its roots in British tradition. In Britain, mid-nineteenth century compulsory vaccination kindled what historians call “the largest medical-resistance campaign ever mounted in Europe,” one that ended English compulsory vaccination by the end of the century.¹ American anti-vaccinators, however, have not been as successful. Vaccine mandates and exemptions have evolved in state codes for decades, responding to changing notions of health and liberty, outbreaks of disease, and political pressure. Now, exemptions come in three forms: medical, religious, and personal belief.

Unlike religious exemptions, which can be found ubiquitously due to 1960s advocacy efforts, personal belief exemptions do not have a single origin, nor a stable form.² They have been enacted from as early as 1850 to as late as 2013; use language that emphasizes “beliefs” that can be “conscientious,” “philosophical,” or “personal”; and do not always cover all vaccine mandates. They also seem to be losing influence—in the past six years, five states have repealed personal belief exemptions.³

The piecemeal configuration of the personal belief exemption—with a unique history for each of the over 20 states it has traveled through—has hindered a complete story of the personal belief exemption. Historians have begun to chronologize its legal origins, but current work has passed over the exemption’s evolving language, geographical spread, and legal context.⁴ Other scholars mistakenly date the personal belief exemption to the late twentieth century, ignoring its rich, centuries-long history.⁵

My project aims to unravel the tangled, complicated history of the personal belief exemption in American society by first systematically documenting its legal and judicial history, then by exploring how personal belief has historically related to evolving notions of conscience, liberty, and morality in Western thought. This history could not be more pertinent to our modern moment: public health forecasts suggest that every American citizen could be vaccinated by the summer of 2021; historical lessons portend that individuals will need to be persuaded to vaccinate for many months thereafter. And while vaccine mandates have largely escaped popular attention for Covid-19, efforts to resist vaccination will surely bring the personal belief exemption into the public sphere. With this project, I hope to create a resource for members of the public, policymakers, and public health experts to gain a nuanced understanding of the personal belief exemption in our history: where it comes from, how it has changed, and how it

helps articulate our broader understanding of American identity.

3. Research Plan - Methodologies and Timeline: 450-700 words. Please define the main challenges of your project and what research methods you will use to address these challenges. Describe your research plan for the summer in chronological order - either use a week-by-week timeline or phases approach (i.e. week 1, week 2...or phase 1, phase 2...). Each week/phase should specify goals, action items, and methods. Please include in your plan information about exactly how/when you will check in with your research mentor.

During the spring and summer of 2021, I will conduct most of my original historical research, which involves documenting and visualizing the legal and judicial history of the personal belief exemption. During the following academic year, I will be placing my historical findings in historiographical context and writing up my thesis.

My work this spring and summer can be divided into two phases:

Phase 1: Data Collection

During the spring of 2021, I will be determining how I can best translate the history of the personal belief exemption from text scattered across legal documents into discrete, coded data I can analyze and visualize. I intend to include, for example, the text of statutes, bills, and case laws that involve the personal belief exemption; years of passages and rulings; dates of amendments, rejections, and other legislative and judicial actions; and descriptive classifiers of each item in my dataset.

I will be using my work from the history of California's personal belief exemption to iteratively create the framework of my data set.⁶ California provides a useful case study because its exemption has been modified in congressional committees, restricted and expanded to apply to certain diseases, challenged in court and in ballot propositions, introduced in numerous failed bills, and, finally, repealed in statutory law.

During the first seven weeks of summer 2021, I will be researching the legislative and judicial history of the personal belief exemption in each state's law and transcribing my findings into my dataset. My legislative history will draw primarily from HeinOnline's State Session Laws Library, while my judicial research will draw from HeinOnline, LexisNexis, and LLMC-Digital. According to Elena Conis, about 20 states have had a personal belief exemption at some time in their enacted code.⁷ While I will need to verify this claim independently, I expect approximately 20–25 to have legislative records of the personal belief exemption. Spending seven weeks on data collection therefore allocates about one day to research and transcribe the legislative and judicial history of the personal belief exemption in each relevant state, with several extra days for states with particularly extensive histories.

I anticipate that my dataset will contain between 250 and 500 entries, depending on the granularity of my research and the extent of history in each state. The size of my dataset therefore precipitates the need for visualization of this data to understand how the personal belief exemption has changed beyond the singular state level.

Phase 2: Visualization and Analysis

During the next five weeks of summer 2021, I will be creating visualizations of and analyzing my dataset. I plan to use a combination of existing tools for data visualization and analysis, such as TimelineJS, Tableau, and ArcGIS, and customizable software packages in programming languages like Python and R. My visualizations will consist of interactive graphics that change over time, such as a map of the United States that color codes states that have active personal belief exemptions from 1850 (the first personal belief exemption, in Maine) to the present. During the first three weeks, I plan to create snapshots of these graphics for one random year; I will then spend the last two weeks extending these graphics to the rest of the years covered in my data set. I expect the first part to take longer because it involves the difficult step of converting my data set into graphic form, while the second part involves merely iterating my first step over every year in my data set and formatting my work for aesthetic appeal.

Over the next academic year, I will place my historical findings in historiographical context (fall), write up my thesis (spring), and finalize my visualizations (spring). Specifically, I will contextualize the personal belief exemption within the historical and philosophical literature of conscientious opposition in American history and conscience in Western thought. Although my historical research over the summer will be useful for exploring the case study of vaccination, my historiographical research will put my historical research in a broader perspective and explore how personal belief has come to be a distinctly American value, one with ties to ever-shifting American notions of conscience, liberty, and morality.

4. Your Qualifications and Project Affiliations: 150-250 words. What experiences have prepared you to carry out this research project, including coursework, previous research experiences, and other relevant skill building? If your project involves access to people and/or institutions to support your work (i.e. interviewing subjects or partnering with institutions), please describe the affiliations, permissions and agreements you have already established as part of your plan.

I have studied the history of anti-vaccination for two years with Dr. Elena Conis from the School of Journalism since spring 2019, and our work has culminated in a forthcoming paper in the *Journal of History of Medicine and Allied Sciences* on the history of the personal belief exemption in California.⁸ Under Dr.

Conis, I have gained strong skills in historical and legal research, and am experienced in using historical, newspaper, and legislative archives, both digital and physical, to assemble the facts framing historical events.

My computational biology research with the Drubin/Barnes Lab has previously been sponsored by the Rose Hill Foundation. While I have since moved on to the humanities, my former computational research, in conjunction with data science skills from Data 8, has given me the technical expertise to employ the digital humanities in my project.

As editor-in-chief of the *Berkeley Scientific Journal* and contributor to the *Public Health Advocate*, I am familiar with the rigor of independent writing projects, well-disciplined in complying with deadlines, and well-acquainted with the importance of organizing extensive sources. These experiences have also taught me the value of public-facing scholarship, which aids my efforts to create work with broad public and academic appeal.

As a double major in rhetoric and molecular and cell biology, I have taken upper-division coursework in rhetoric, history, anthropology, legal studies, and molecular and cell biology. My interdisciplinary studies allow me to engage with academic thought from a variety of fields and incorporate diverse perspectives in my work.

5. Citations and Core Texts: No longer than 1 page. This section should contain citations for any references you made in your proposal, and you are welcome to list any additional texts that you feel are central to your project.

1. Nadja Durbach, *Bodily Matters: The Anti-Vaccination Movement in England, 1853–1907* (Durham: Duke University Press Books, 2004), 5.
2. James Colgrove, *State of Immunity: The Politics of Vaccination in Twentieth-Century America*, 1st ed., California/Milbank Books on Health and the Public 16 (Berkeley and Los Angeles, California: University of California Press, 2006), 180.
3. National Conference of State Legislatures, “States with Religious and Philosophical Exemptions from School Immunization Requirements,” National Conference of State Legislatures, accessed January 22, 2020, <https://www.ncsl.org/research/health/school-immunization-exemption-state-laws.aspx>. These states were California (2015), Vermont (2015), Washington (2019), Maine (2019), and New York (2019).
4. Elena Conis, “The History of the Personal Belief Exemption,” *Pediatrics*, March 1, 2020, <https://doi.org/10.1542/peds.2019-2551>.
5. Mark A. Largent, *Vaccine: The Debate in Modern America* (Baltimore, MD: Johns Hopkins University Press, 2012); Jonathan M. Berman, *Anti Vaxxers: How to Challenge a Misinformed Movement* (Cambridge, Massachusetts: The MIT Press, 2020).
6. Elena Conis and Jonathan Kuo, “Historical Origins of the Personal Belief Exemption to Vaccination Mandates: The View from California,” *Journal of*

the History of Medicine and Allied Sciences 76, no. 2 (forthcoming),
<https://doi.org/10.1093/jhmas/jrab003>.

7. Conis, "The History of the Personal Belief Exemption."
8. Conis and Kuo, "Historical Origins of the Personal Belief Exemption to Vaccination Mandates."